

ELECTRICAL Supplies



Catalogue
Twenty One



Class TK455

Book M3

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IN THE MESCO BUILDING BY MAY 1, 1906

Because of the rapid increase in our business, larger quarters have become imperative. We have purchased the five-story and two-basement building

AT 17 PARK PLACE

which is now being completely remodeled to accommodate the various departments. This building will be occupied in its entirety by us not later than May 1st.

MANHATTAN ELECTRICAL SUPPLY CO.

CHICAGO
188 Fifth Avenue

NEW YORK

JERSEY CITY
Factories

TWENTY-FIRST EDITION

Illustrated Catalogue and
Price List

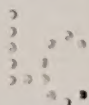
**Manhattan
Electrical
Supply Co.**

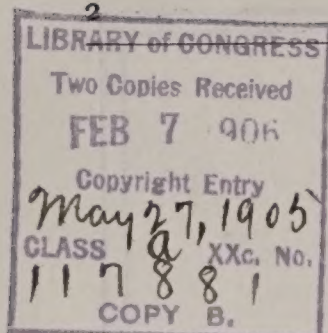
Manufacturers and Jobbers of
Electrical Supplies

NEW YORK

CHICAGO

Factories: JERSEY CITY





INTRODUCTORY

In compiling this, the Twenty-first Edition of our general Catalogue, we have endeavored to make it a complete and up-to-date reference book of

STANDARD ELECTRICAL SUPPLIES

We have tried to make every department complete with illustrations and descriptions in a concise and compact form. We have confined our selection of goods not manufactured by us to the best standard grades and have eliminated duplications wherever possible without inconvenience to our trade. We have tried to maintain our previous reputation as builders of a Catalogue which includes all necessary articles for general installations.

We Manufacture a large percentage of the supplies listed in this book and are prepared to quote special prices to dealers and large purchasers on everything listed, and particularly on our own manufacture.

We have arranged the Alphabetical Index to indicate with a * goods manufactured by us.

Hoping for your favorable consideration.

MANHATTAN ELECTRICAL SUPPLY Co.

NEW YORK
CHICAGO
JERSEY CITY

CA 7-7/137

TERMS

Our terms to people of established credit are 30 days net, in Chicago or New York funds. Unless your standing is known to us, or you have a satisfactory rating with the Agencies, please have a statement of your financial condition and satisfactory references accompany your order; if this is not done, there will necessarily be delay while we look up your credit.

All accounts will be due on the fifteenth of the month following shipment, and if not paid by that time will be subject to sight draft without notice.

We do not allow cash discounts.

Goods will be sent C. O. D. if a remittance sufficient to pay express charges both ways accompanies the order, or if express charges are guaranteed by your local express agent. The charge for return of money on C. O. D. consignments is always added.

If 25 per cent of the bill is remitted with the order, the goods will be forwarded by freight, and draft for the balance, with bill of lading attached thereto, will be sent to any designated bank, so that the goods can be delivered at destination on payment of draft.

Payments may be made by Draft, Post-office or Express Money Order or Registered Letter; we will not be responsible for remittances lost in transit.

PRICES

All former prices are hereby annulled.

All prices are subject to change without notice.

We will cheerfully and promptly answer all inquiries for prices and discounts. In writing us for quotations kindly refer to list and page number, and state the quantity desired.

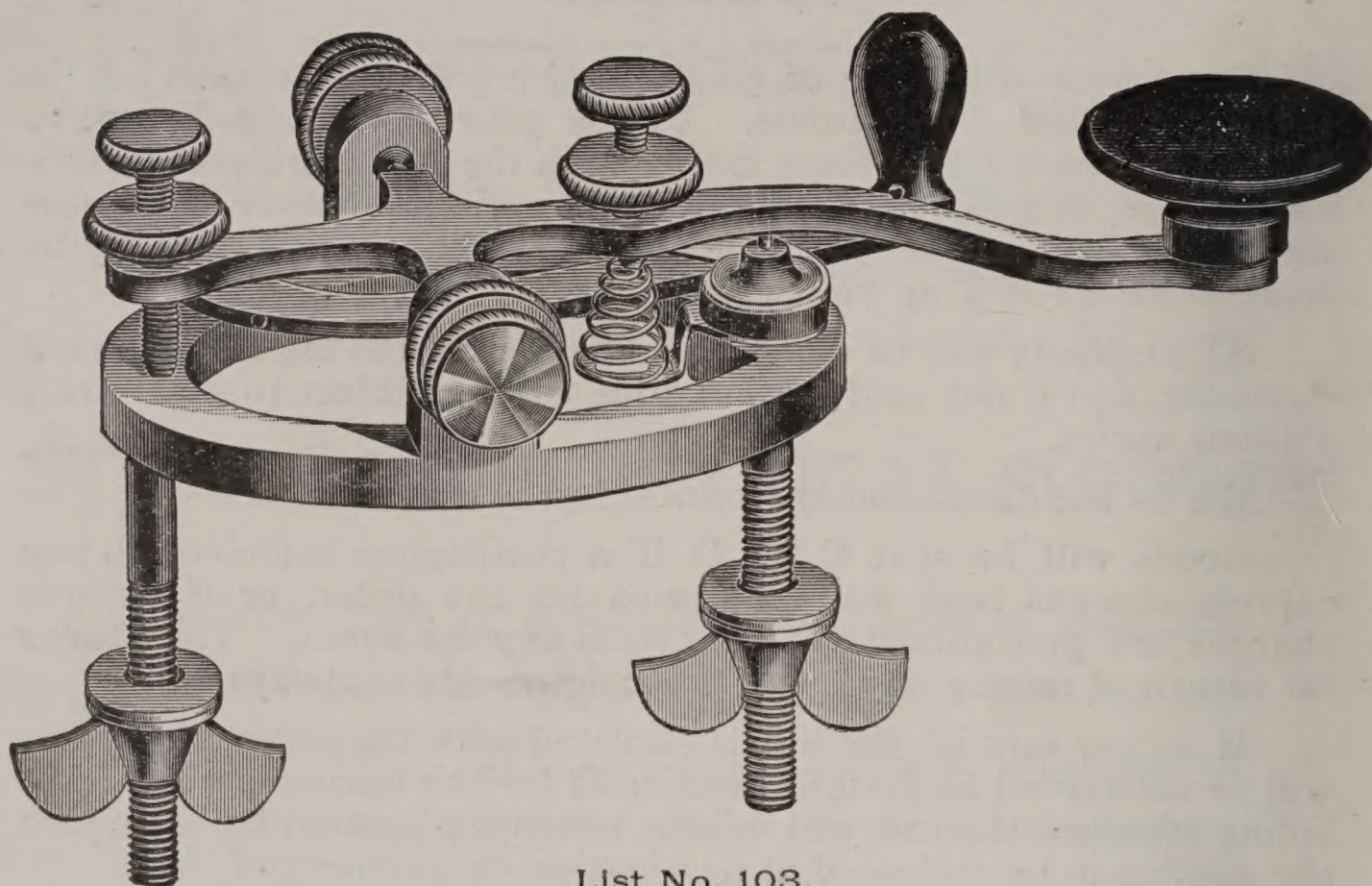
SHIPMENTS

We request our customers to give us shipping directions with their orders, but in their absence, we will use our best judgment in making selections of routes. As we employ experienced packers, we cannot be responsible for breakage after having obtained "in good order" receipts from a transportation company. All claims for breakage and damage should be made to the carriers.

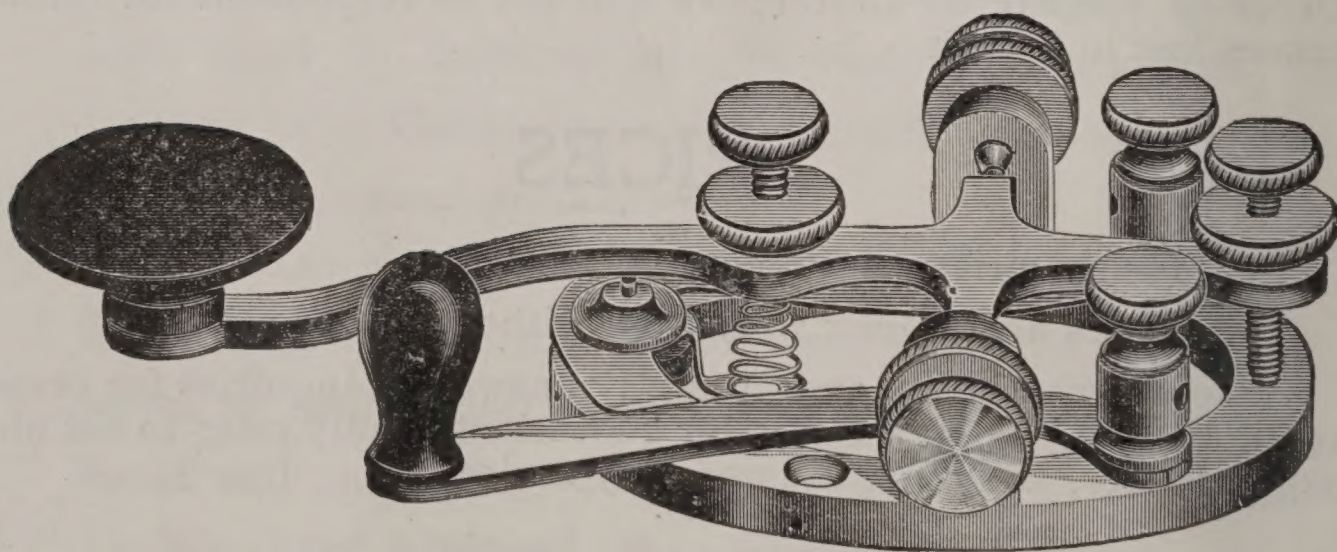
Goods ordered to be shipped by mail will only be sent at purchaser's risk of loss or damage.

When ordering, give list and page number.

STEEL LEVER SOLID TRUNNION KEYS.



List No. 103.



List No. 108.

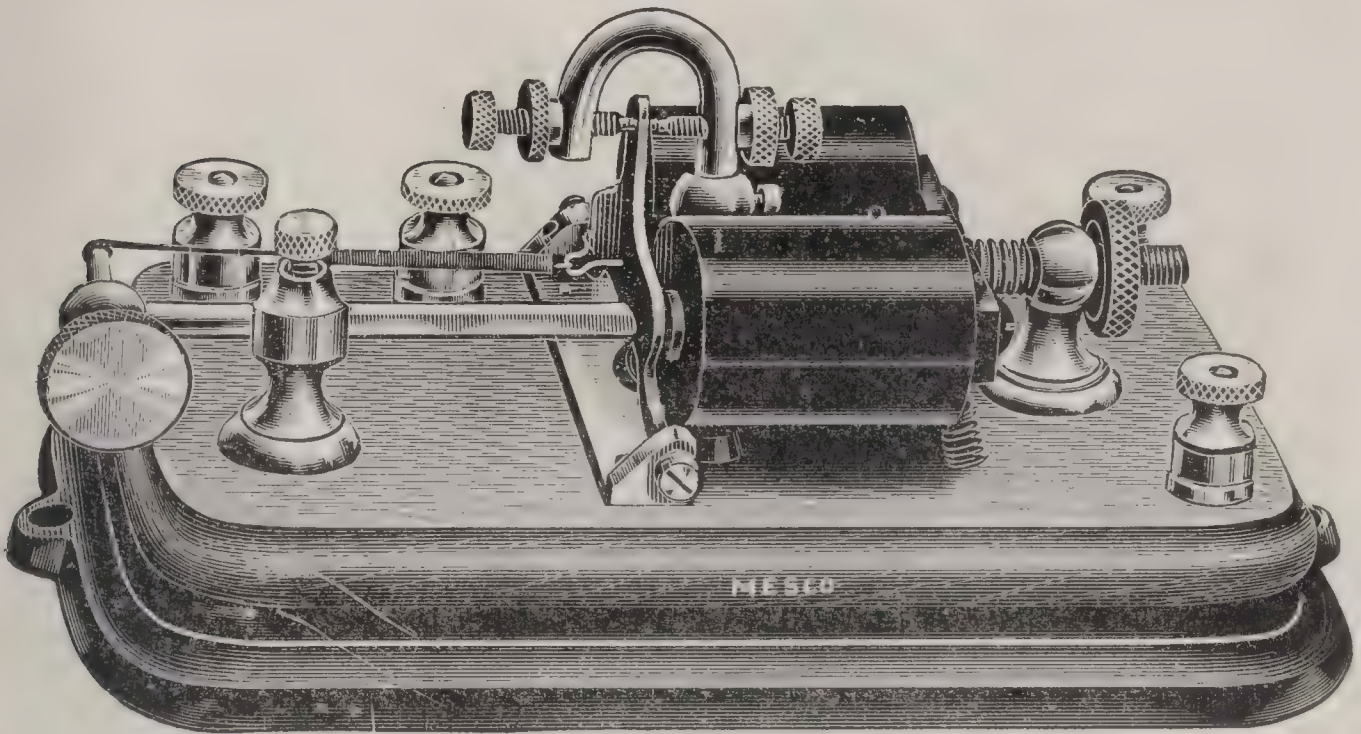
All parts are finely finished. The Lever is nickel-plated and brass work highly polished, with gutta percha knobs.

All Keys are fitted with our improved adjustment spring holders.

They are the standard of Western Union and Postal Telegraph Companies, and are used on most Railroad systems.

List No.		Price.
103	Key with nickel-plated Lever, brass frame, with legs.....	\$1.75
105	“ “ “ “ and frame, “	2.25
106	“ “ silver-plated “ “ “	2.50
108	“ “ nickel-plated “ brass frame, legless.....	2.25
109	“ “ “ “ and frame, legless.....	2.50

COMMERCIAL STANDARD RELAY.



Highly Polished. Finely Finished.

The armatures and levers of our relays are made in one piece from purest Norway iron which gives them great strength and firmness, and being lighter than the two-piece armature, is much more sensitive.

Thousands of these relays are in use on Western Union and Postal Telegraph lines.

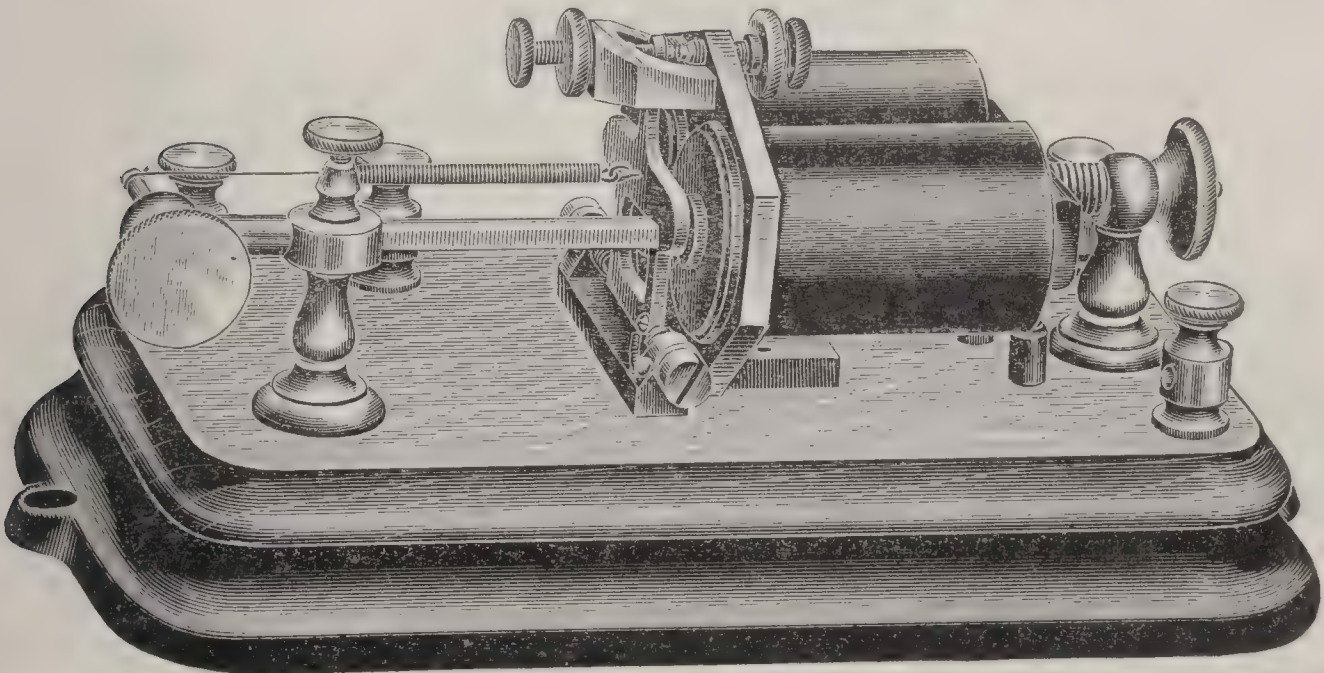
List No.

		Price.
125	Commercial Standard Relay, 150 Ohms	
145	" " " 250 "	\$7 00

8 00

Special Resistances to order.

R. R. PATTERN STANDARD RELAY.



Metal parts highly finished, silk-covered wire, polished rubber-covered coils, mahogany base mounted on ornamented surbase, extension adjustment and one piece armature.

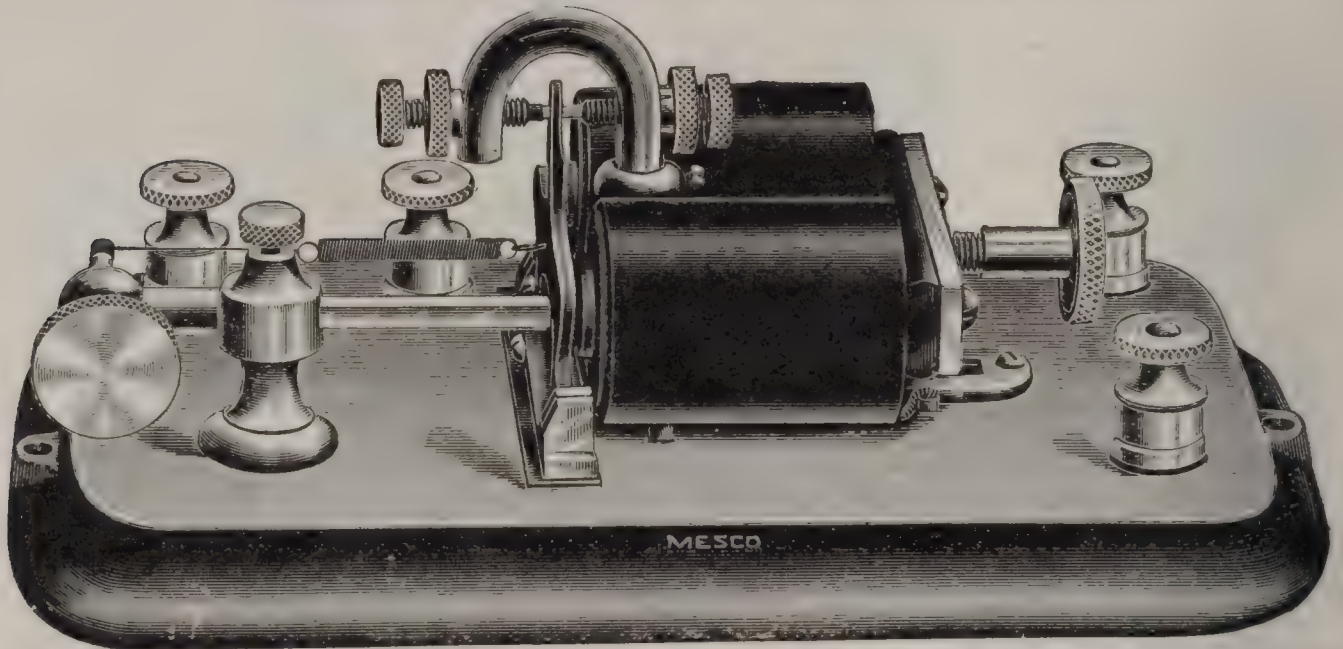
List No.

		Price.
119	R. R. Pattern Relay, 150 Ohms	
149	" " " 250 "	\$7 00

8 00

Special Resistances to order.

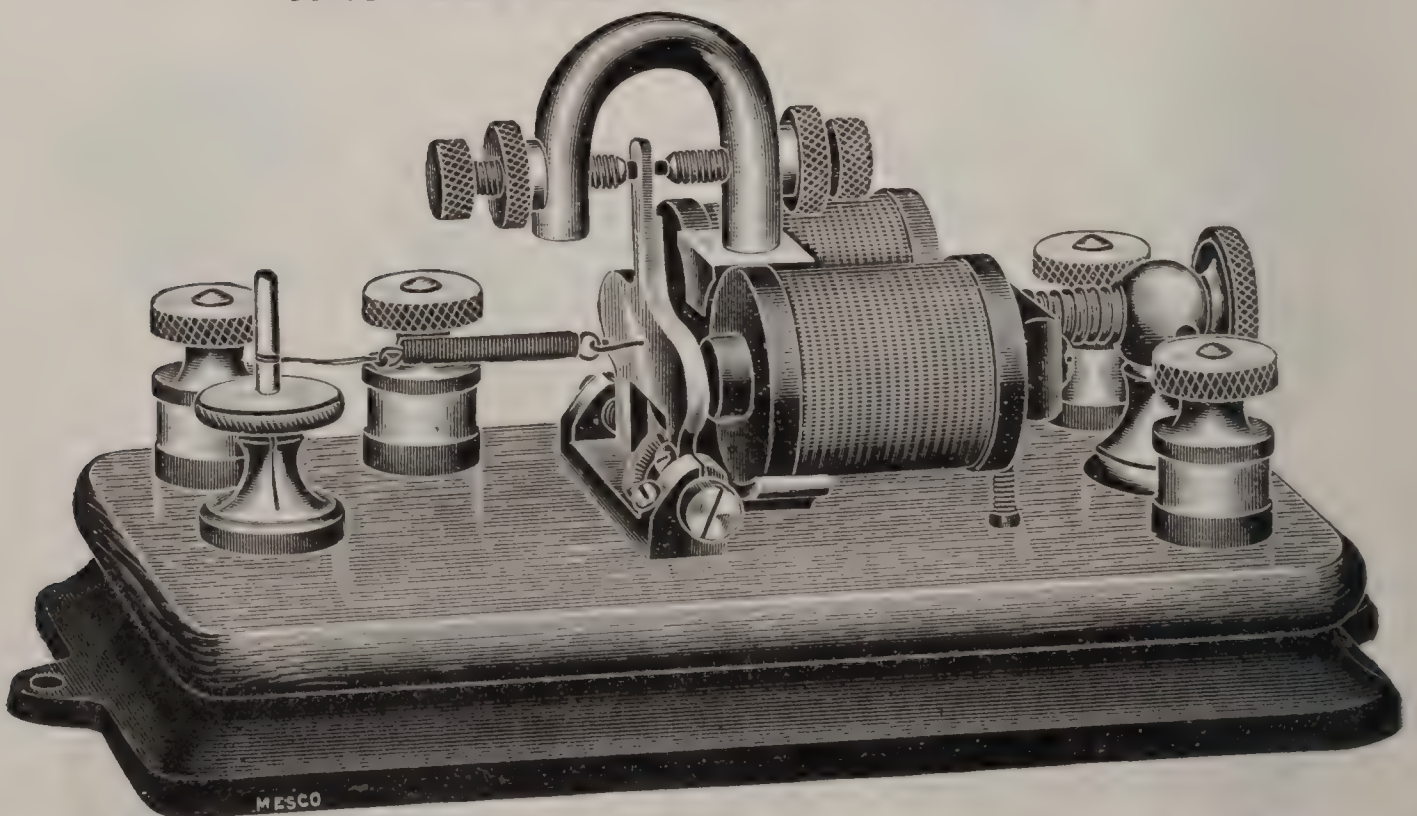
20th CENTURY RELAY.



In the 20th Century Relay we have produced the most perfect telegraph instrument of its kind ever made. Every telegrapher realizes the advantage of quick adjustment of magnets when there is heavy "escape" on the line. With our 20th Century Relay the magnets can be moved back by simply pulling on the magnet adjusting screw, and if found necessary to keep them away from the armature, a few turns of the adjusting screw will hold them firmly in place. Every part of the relay is most carefully constructed and assembled, and the best selected materials only are used.

List No.		Price.
122	20th Century Relay, 150 Ohms	\$8 00
123	" " " 200 "	8 50
124	" " " 250 "	9 00
148	" " " 300 "	9 50

IMPROVED PONY RELAY.

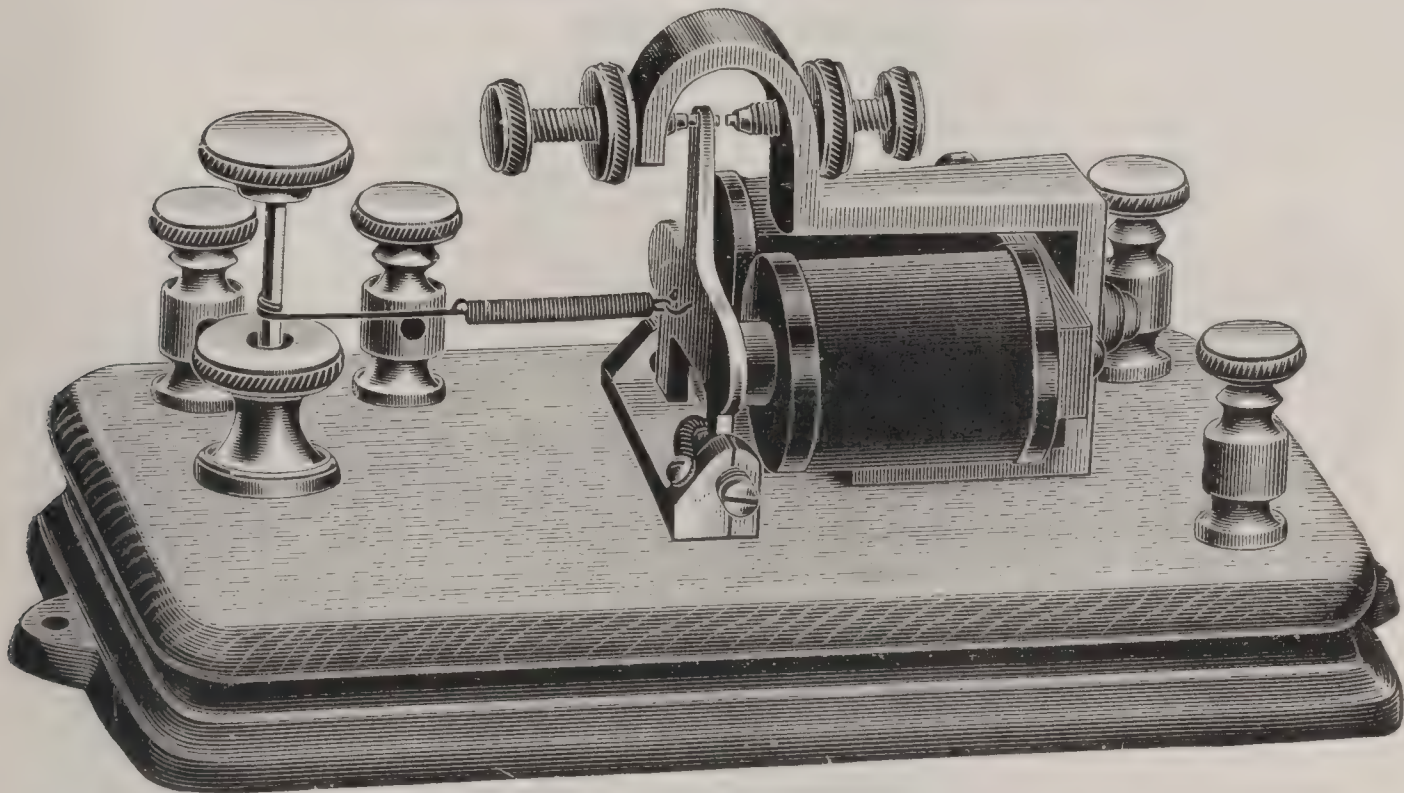


This Relay is an improvement on the Standard Pony type, and combines the good points of the Pony, with those of the larger size instrument. It has adjustable magnets, one piece armatures and levers. It is finely finished and mounted on polished mahogany base with enameled iron surbase.

List No.		Price.
162	Relay, 5 Ohms, for Burglar Alarm Work	\$5 00
163	" 20 " " Lines up to 10 Miles	5 50
164	" 50 " " " 10 to 30 "	6 00
165	" 75 " " " 30 to 50 "	6 50

With Rubber Magnet Covers, 50c extra.

STANDARD PONY RELAY.

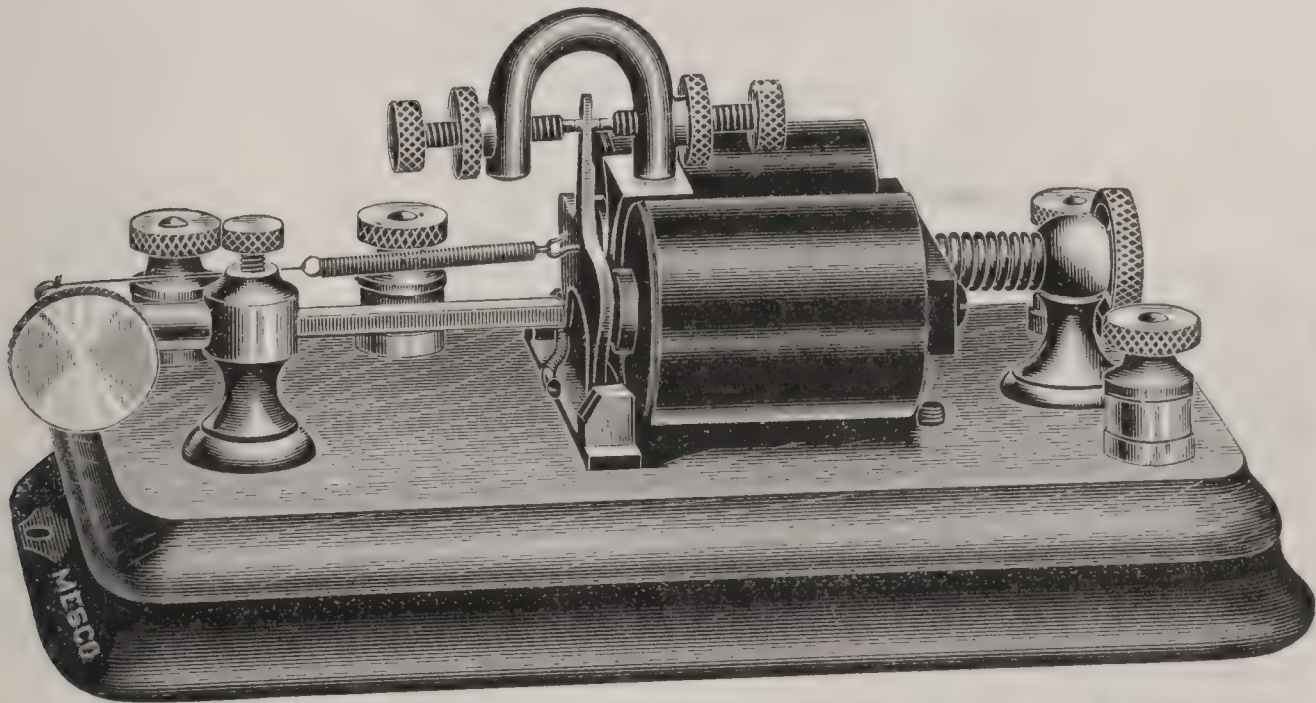


Finely Finished and Mounted on Polished Mahogany Base, with Ornamented Metallic Surbase.

This is a finely finished and excellent relay. Its use will enable work on lines of one to 20 miles in length, to be done with perfect ease where main line sounders fail to give satisfaction. It also requires much less battery power to operate it than does the main line sounder of a similar resistance.

List No.		Price.
114	Standard Pony Relay, 5 Ohms, for Burglar Alarm Work.....	\$3 00
115	" " " 20 " " Lines up to 10 miles.....	3 50
116	" " " 50 " " " 10 to 30 ".....	4 00
118	" " " 75 " " " 30 to 50 ".....	4 50

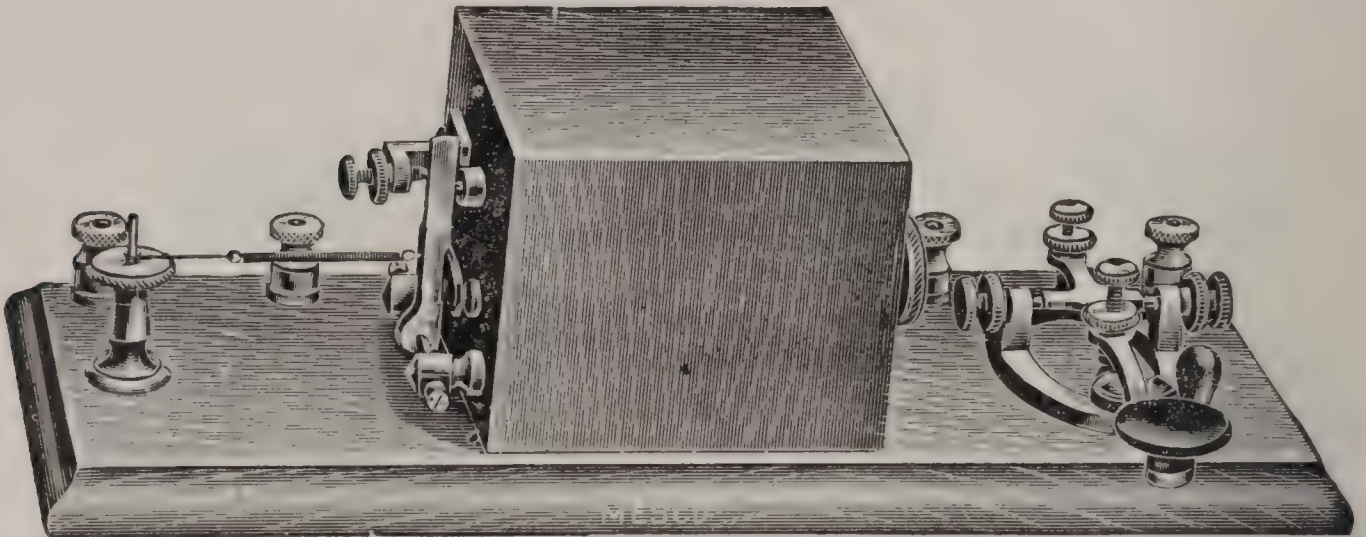
BARCLAY RELAY.



This relay is manufactured by us under the Barclay Patents, and is one of the finest working relays on the market.

List No.		Price.
225	150 Ohms resistance.....	\$8 00
226	200 " ".....	8 50
227	250 " ".....	9 00
228	300 " ".....	9 50

BOX SOUNDING RELAY.



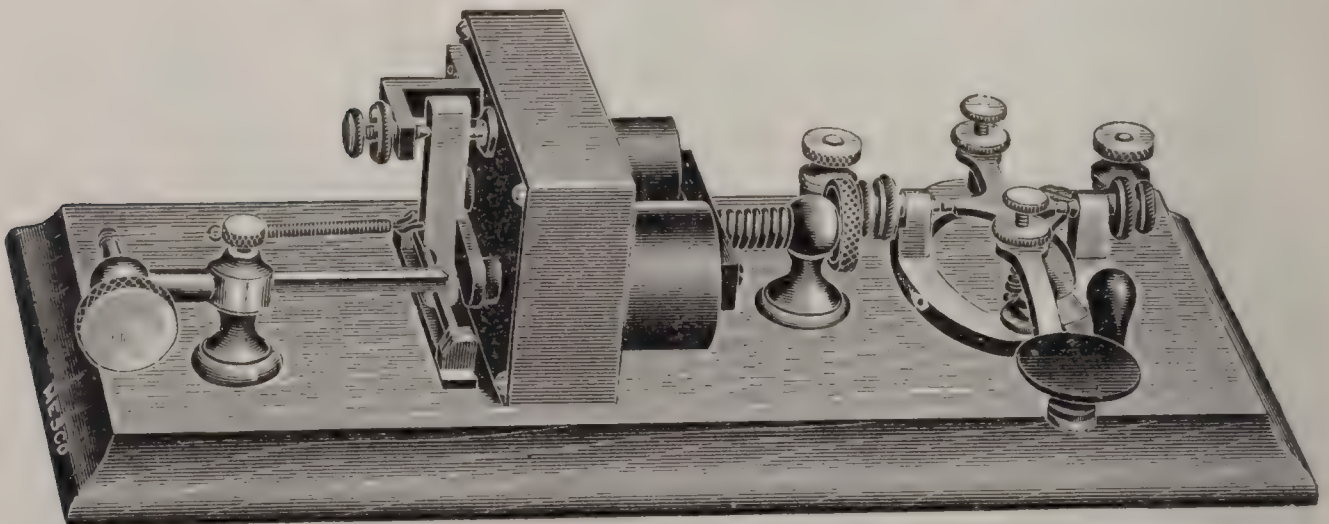
The Box Relay is designed to combine in one instrument, as far as possible, all the advantages to be obtained in ease of working on long or difficult lines that is guaranteed by the use of a relay, and at the same time dispense with the usual local sounder and local battery. The box device has the acoustic effect of amplifying the sound to such an extent as to make the use of the sounder unnecessary, except in very noisy locations.

This set is made with box and base of polished mahogany. We call particular attention to the patented sound-regulating attachment on this relay, which permits the volume of clear sound to be increased or decreased at will, and the quality of the tone to be regulated as may be desired. These especial advantages make this particular combination the finest and most desirable Box Relay ever offered to the Telegraphic world.

List No.		Price.
127	150 Ohms Resistance, with Key	\$10 00
133	250 " " " "	11 00
129	150 " " without Key	7 00
131	250 " " " "	8 00

Special Resistances to order.

BARCLAY BOX RELAY.

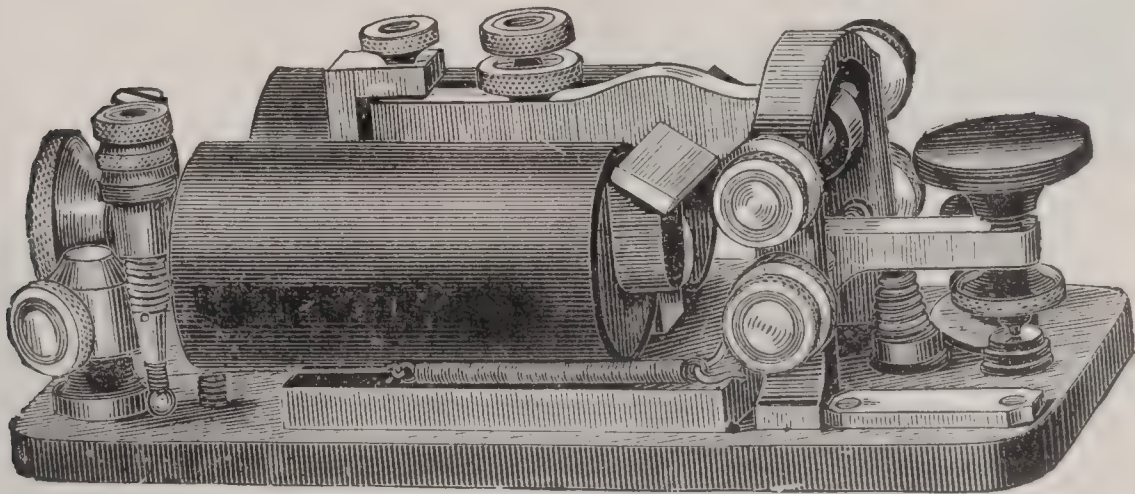


The Barclay Patent Box Relay is well known among the Telegraph Fraternity, and is noted for its ease of adjustment and its loud, clear sound.

The workmanship and finish are the best.

List No.		Price.
230	150 Ohms Resistance, with Key on Base	\$11 00
231	250 " " " "	12 00
232	150 " " without Key on Base	8 00
233	250 " " " " " "	9 00

LITTLE GIANT POCKET RELAY.

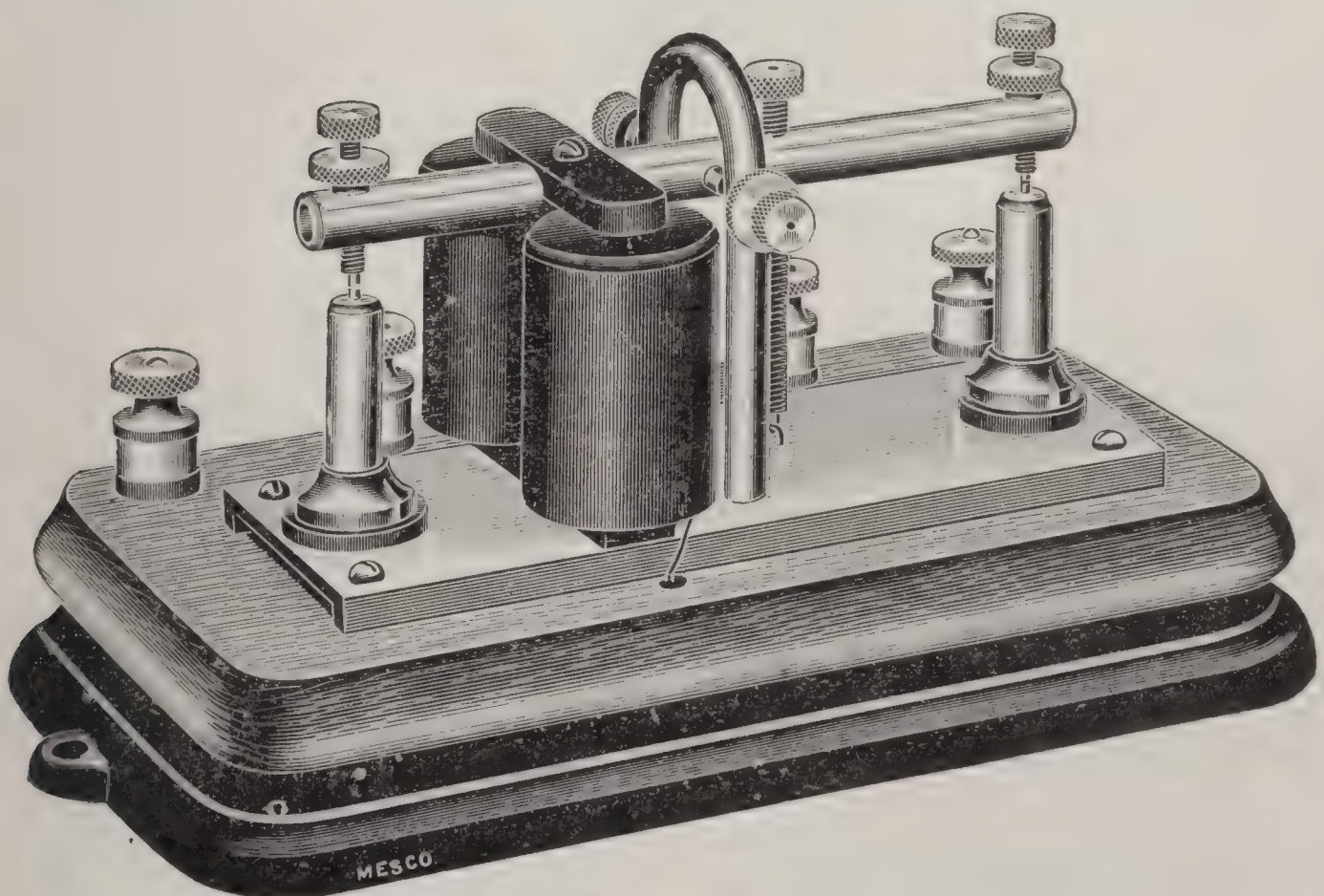


(Cut full size.)

An improved Pocket Relay; all the parts are finely finished and nickel-plated; a perfect working instrument inclosed in leather case, the smallest of the kind on the market; magnets rubber-covered and wound any resistance required.

List No.	Price
160 Little Giant Pocket Relay, 150 Ohms, with Case.....	\$12 00
Special Resistances to order.	

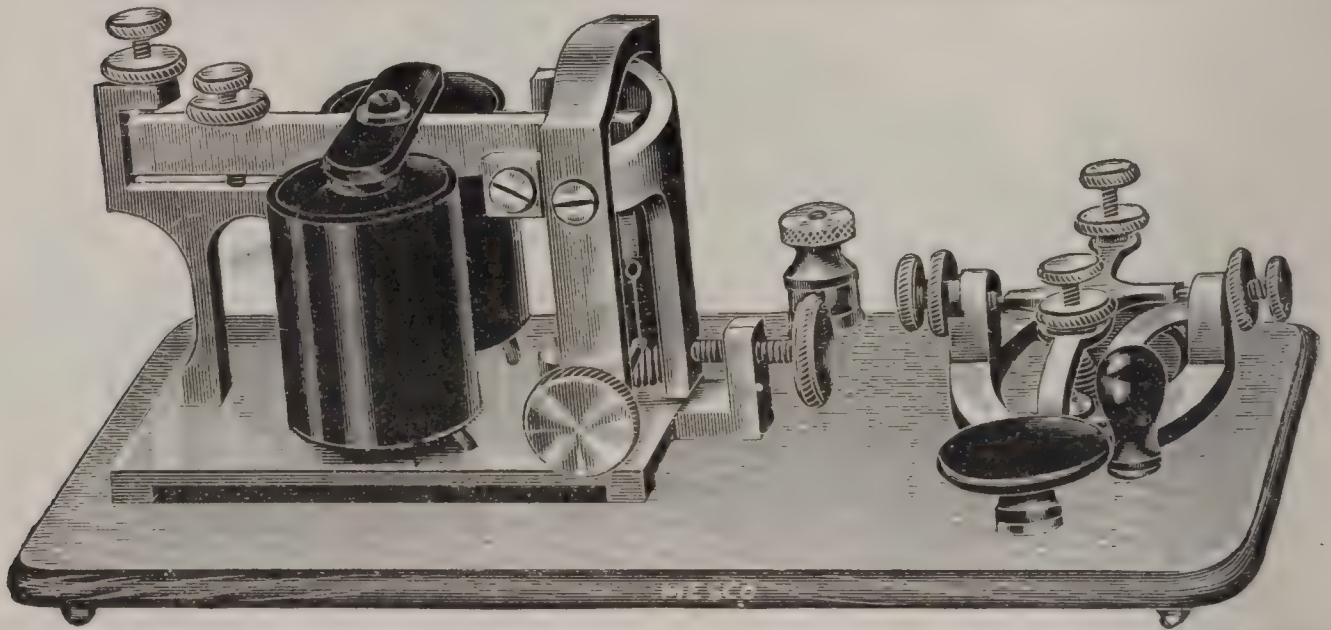
DYNAMO POLE CHANGER.



List No. 235

List No.	Price.
235 Dynamo Pole Changer.....	\$10 00
236 Plain Pole Changing Sounder.....	10 00

IMPROVED MAIN LINE SOUNDER.



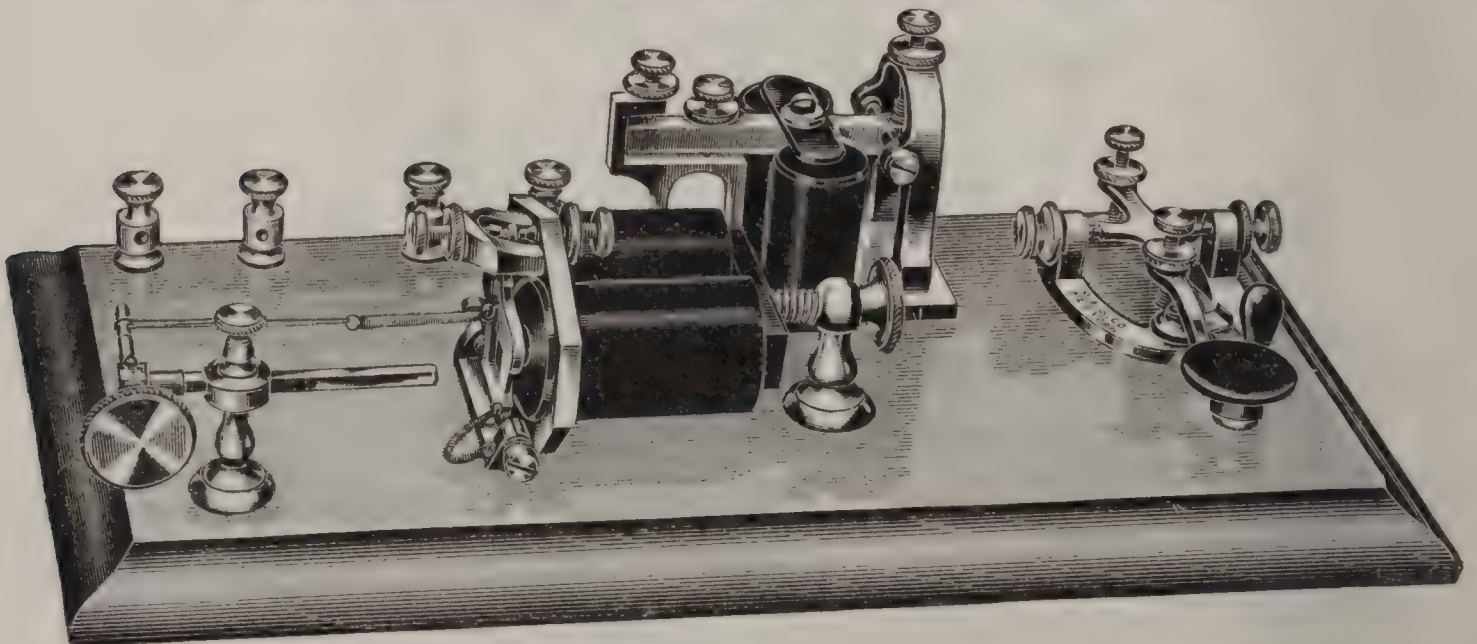
Gives three times the volume of sound given by the very best box Relays, or any other form of Sounding Relays ever before produced.

Unequaled for Wrecking, Testing, Switchboard or Temporary Office use, and all places where it is desirable to dispense with local batteries.

They are made with full size Relay Magnets of 150 Ohms resistance, having a special *armature adjustment* and are fully suited for doing, in a greatly improved manner, the work of regular Main Line Box Relays. They are sensitive to weak currents, giving a clear working sound on circuits, where without them, a relay with local sounder and battery would be absolutely necessary.

List No.		Price.
135	150 Ohms, with Key.....	\$ 9 00
138	250 " ".....	10 00
136	150 " without Key.....	8 00
140	250 " ".....	9 00
Special Resistances to order.		
157	Mahogany Carrying Case, with handle.....	2 50

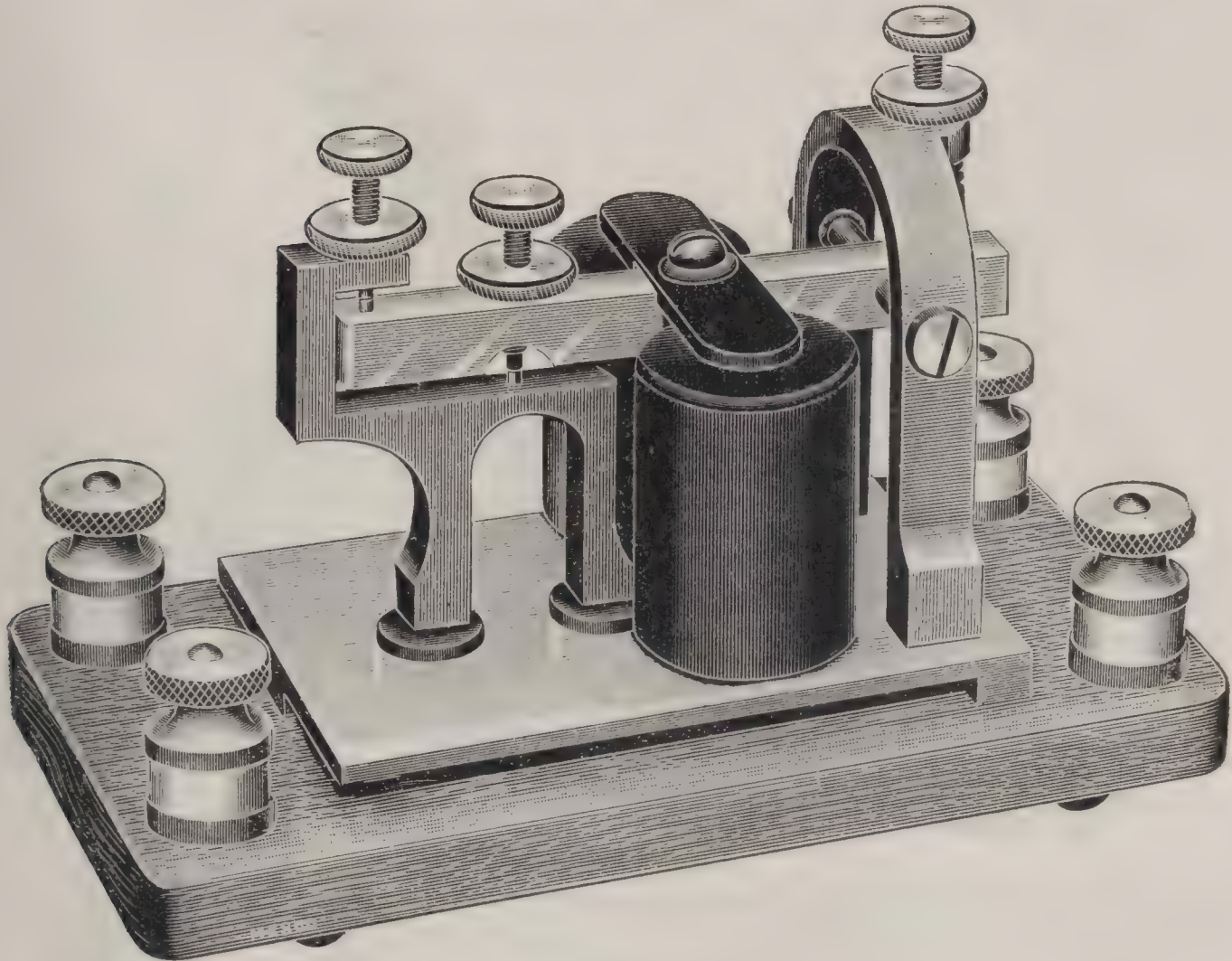
MAIN LINE COMBINATION SET.



This set comprises our standard Relay, Improved Giant Sounder, and Steel Lever Key, mounted on a highly polished mahogany base. It is used extensively in private offices and other places where all of the apparatus on one base is preferable to having them on different parts of the desk.

List No.		Price.
158	Main Line Combination Set, 150 Ohms.....	\$10 00
159	" " " 250 ".....	11 00
Special Resistances to order.		

REPEATING SOUNDER.



List No.	Price.
237 Repeating Sounder, Plain Points.....	\$5 00

"THE MORSE-WATCH" SECRET SOUNDER.

Invaluable in Newspaper and Brokers Offices; for Train Dispatchers, Railway stations, Linemen, Inspectors, Signal Service, Police Stations, etc.

Easily adjusted, strong, durable and simple.
Made in all Resistances.

Every Secret Sounder is furnished complete with Headband, Double Conducting Cord, Special Connecting Tips and fully descriptive Circular.

List No.	Price.
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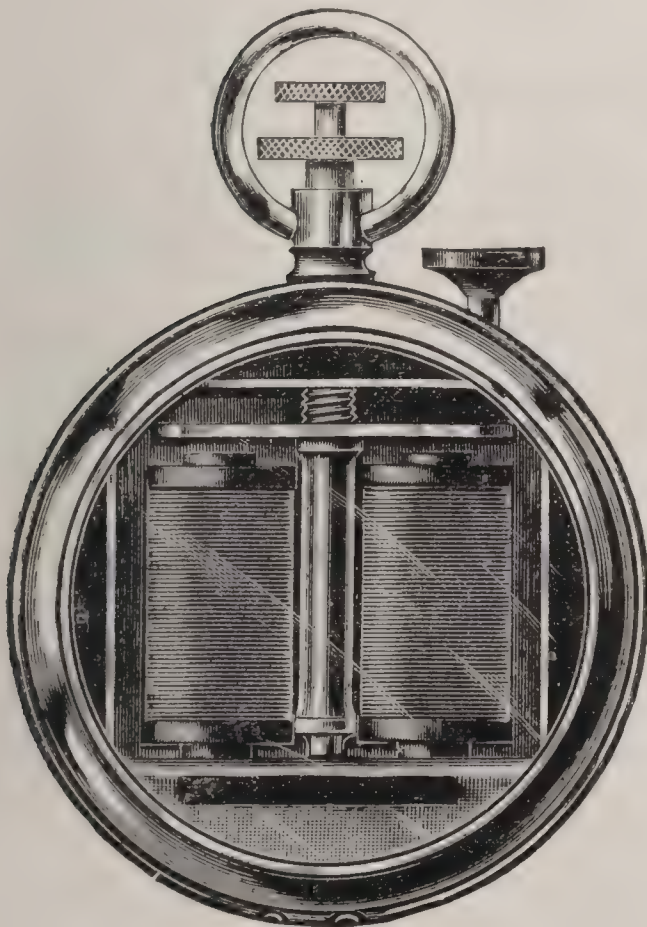
170 Sounder, 4 Ohms with Cords and Headband, without Key.....	\$5 00
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171 Sounder, 150 Ohms with Cords and Headband, without Key.....	5 75
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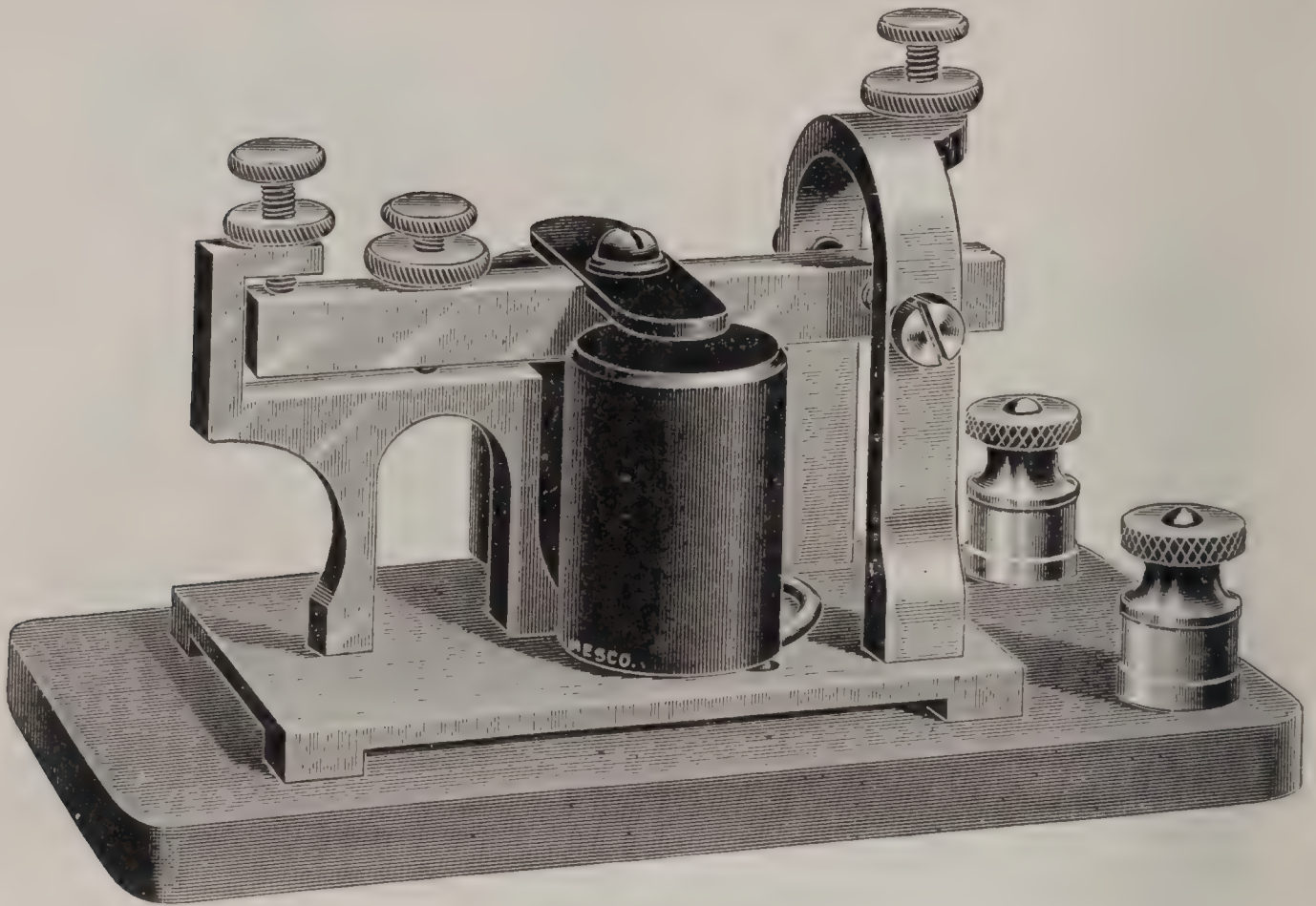
172 Sounder, 250 Ohms with Cords and Headband, without Key.....	6 00
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With Key, \$1.50 extra. Special Resistances to order.

(Cut illustrates the Combination Morse-Watch with Key).



IMPROVED GIANT SOUNDER.



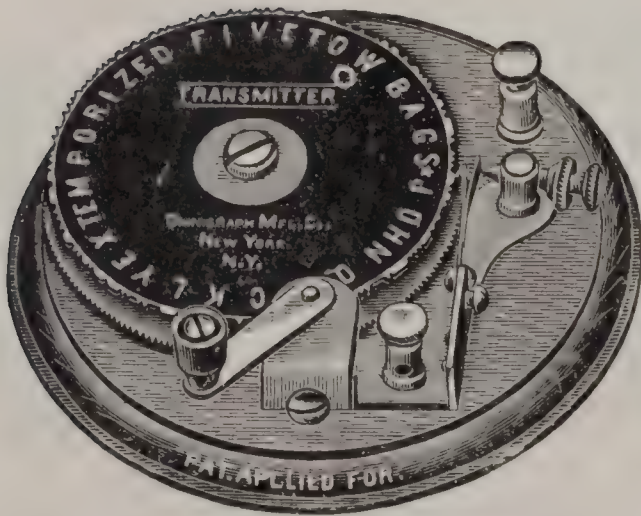
List No. 110.

It is unequalled for quick action, loudness and clear tone. Its proportions are scientifically correct. One cell of ordinary Crowfoot Battery will operate this instrument, producing a sound louder and clearer than can be obtained from any other sounder with two cells of battery.

The clear and distinct sound of this instrument makes it very popular with expert telegraphers.

List No. 110	Giant Sounder, 5 ohms, Brass Lever, each.....	Price, \$2 25
" 111	" " 5 " Aluminum Lever, each.....	" 2 25
" 112	" " 20 " Brass " "	" 2 75
" 113	" " 20 " Aluminum " "	" 2 75

"OMNIGRAPH" TRANSMITTER.



To be used in circuit with Learners telegraph set, or local sounder.

The very best way to learn to read by sound is in a telegraph office with the aid of an expert operator. But it is not always convenient or possible to have this advantage.

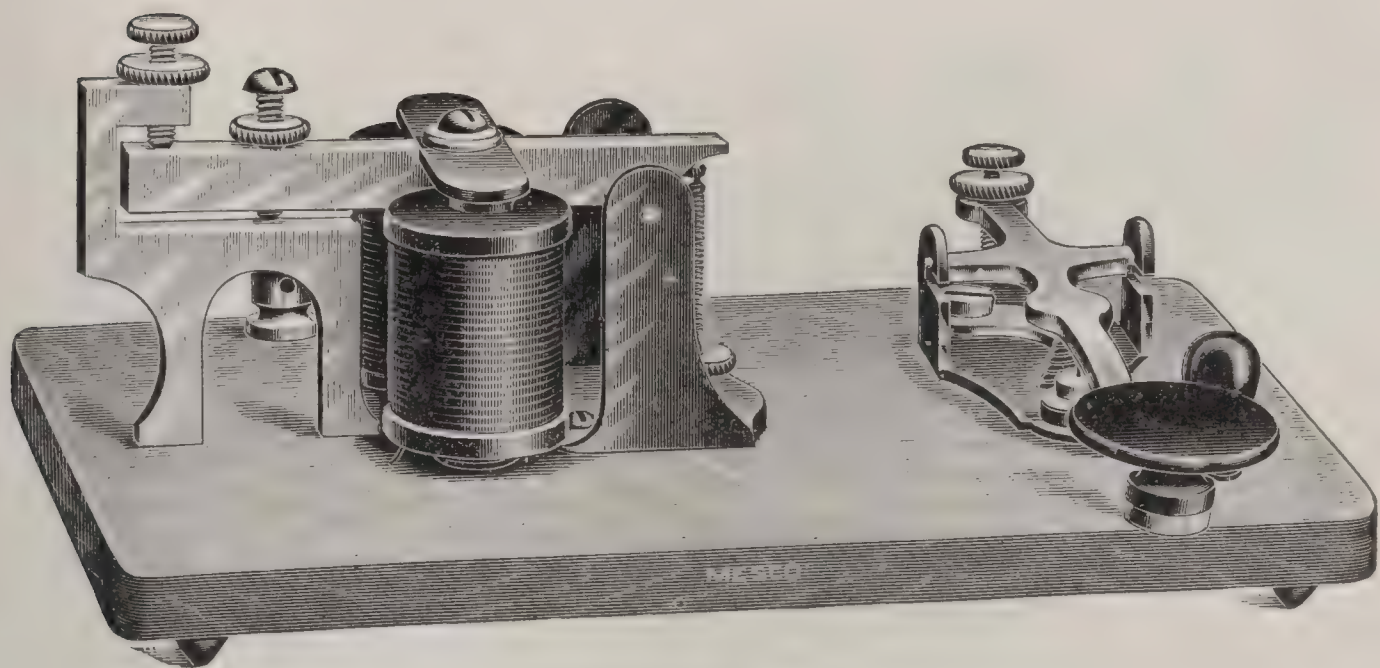
The "Omnigraph" will bring that telegraph office to you, including the expert operator. The Transmitter allows you to tick off a message containing every letter in the Morse alphabet absolutely correct and at any speed you desire. The dots, dashes and spaces can be seen as well as heard; it makes learning easy as well as interesting.

Measures 5x5x2 inches. Weight 1 lb. with book, "How to Become an Expert Operator." *Guaranteed to work perfectly with any instrument or on any line.*

Fourteen extra dials, each containing a message, the set constituting a comprehensive dispatch of three hundred words, all the letters, numerals, punctuation marks, etc. The dials can be *changed* about, making new messages without limit, and you cannot anticipate more than in ordinary commercial practice.

List No.		Price.
177	"Omnigraph" Transmitter with one dial, A to Z.....	\$3 00
	Extra Dials.....each,	05

EXCELSIOR LEARNERS INSTRUMENT.



List No. 180.

The Excelsior Learners Instrument is designed to fulfill all the requirements of a short line apparatus at the least possible cost to the purchaser.

The Sounder Magnets, Lever, Anvil and Key Lever are the same as used on our Eureka Outfit.

The frames for holding Sounder Lever and Key Lever are stamped from selected wrought iron and heavily Japanned. This method of assembling insures permanent adjustment of the side motion of both Key and Sounder Lever as there are no screws to become loose.

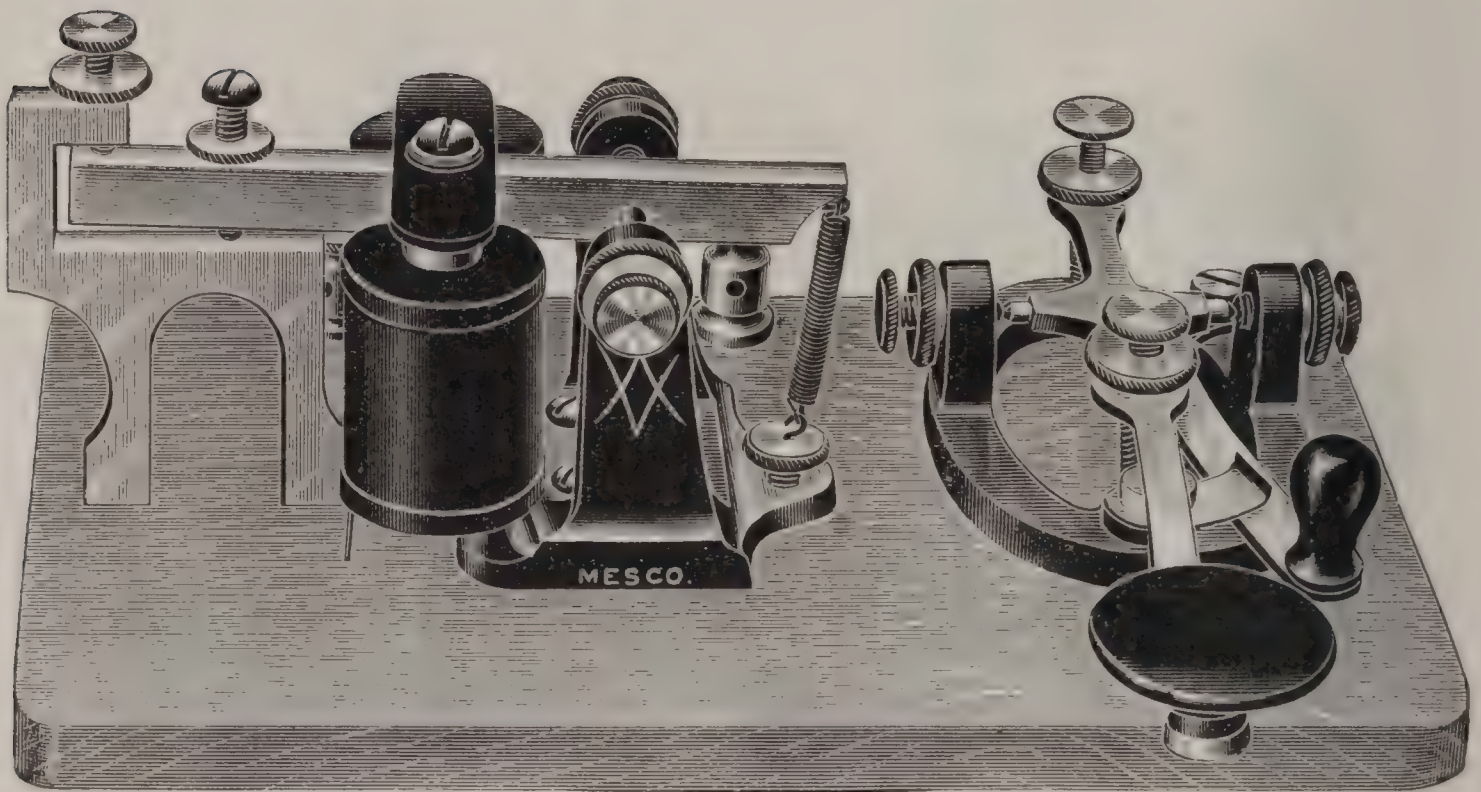
The base is made of Mahogany, highly polished.

This is a first-class, neat and compact learners instrument and will give entire satisfaction on lines up to five miles in length.

A copy of "Philosophy and Practice of Morse Telegraphy" is included with each instrument.

List No.		Price.
180	Excelsior Telegraph Instrument, 5 Ohms.....	\$2.50
181	" " " 20 "	3.00

EUREKA TELEGRAPH INSTRUMENT.



List No. 178.

The Eureka Telegraph Instrument is a first-class, standard size telegraph set. All of the working parts—which includes key lever, sounder lever, sounder yoke or anvil, adjusting screws, etc.—are finely finished composition metal, such as used in all high-grade instruments. The sounder and key bases are japanned and striped with gilt.

Key knob, circuit closer knob, and magnet heads are of polished hard rubber. The base is mahogany and highly polished. The key is our well-known steel lever pattern, and sounder gives a loud, clear, distinct sound.

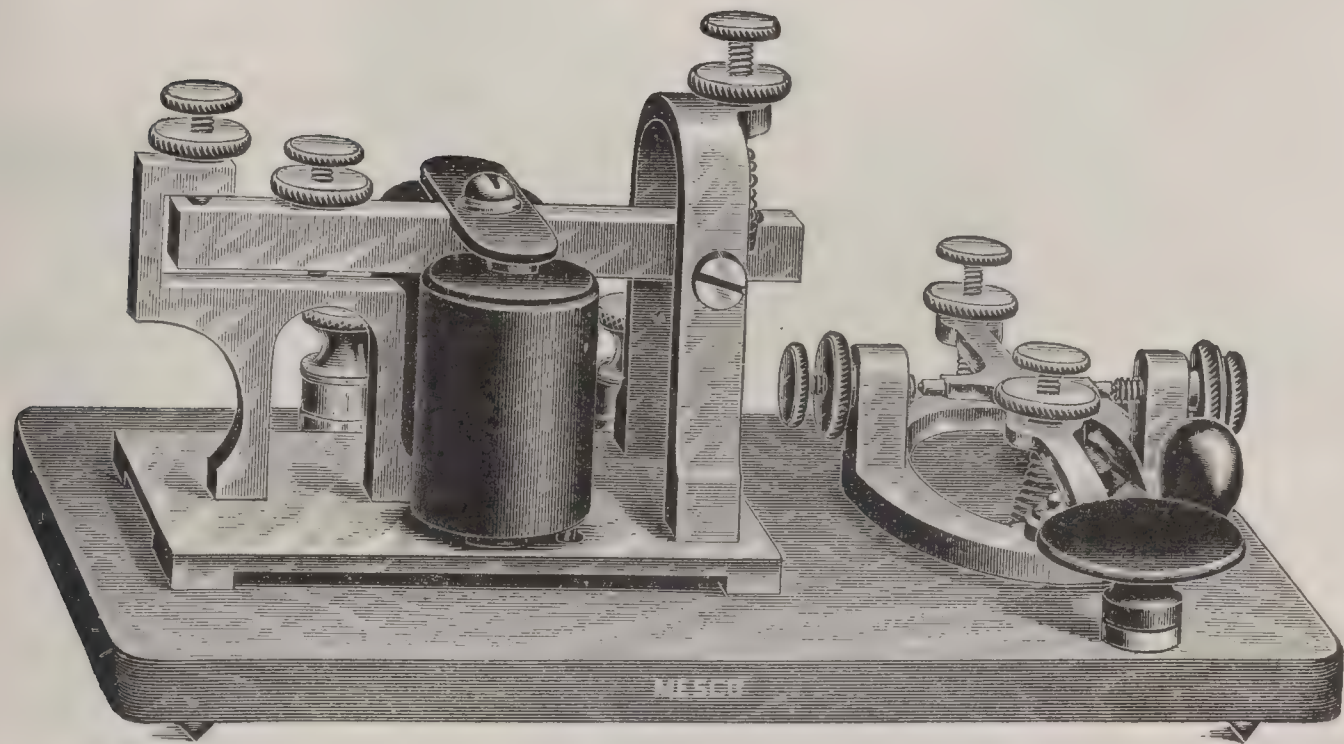
We claim this the best low priced telegraph set ever made. It is one of our specialties and made in large quantities.

Our Mesco Dry Battery will operate this instrument nicely, but we recommend it only for use on a single instrument, and the key must be left open when not being used.

A copy of "Philosophy and Practice of Morse Telegraphy" is furnished gratis with each instrument.

List No.		Price.
178	Eureka Telegraph Instrument, 5 Ohms.....each,	\$3.00
179	" " " 20 "	3.50

IMPROVED GIANT COMBINATION SET.



Improved Giant Sounder (with Aluminum or Brass Lever) and Steel Lever Key Combination Set.

The neatest, most symmetrical and durable outfit manufactured.

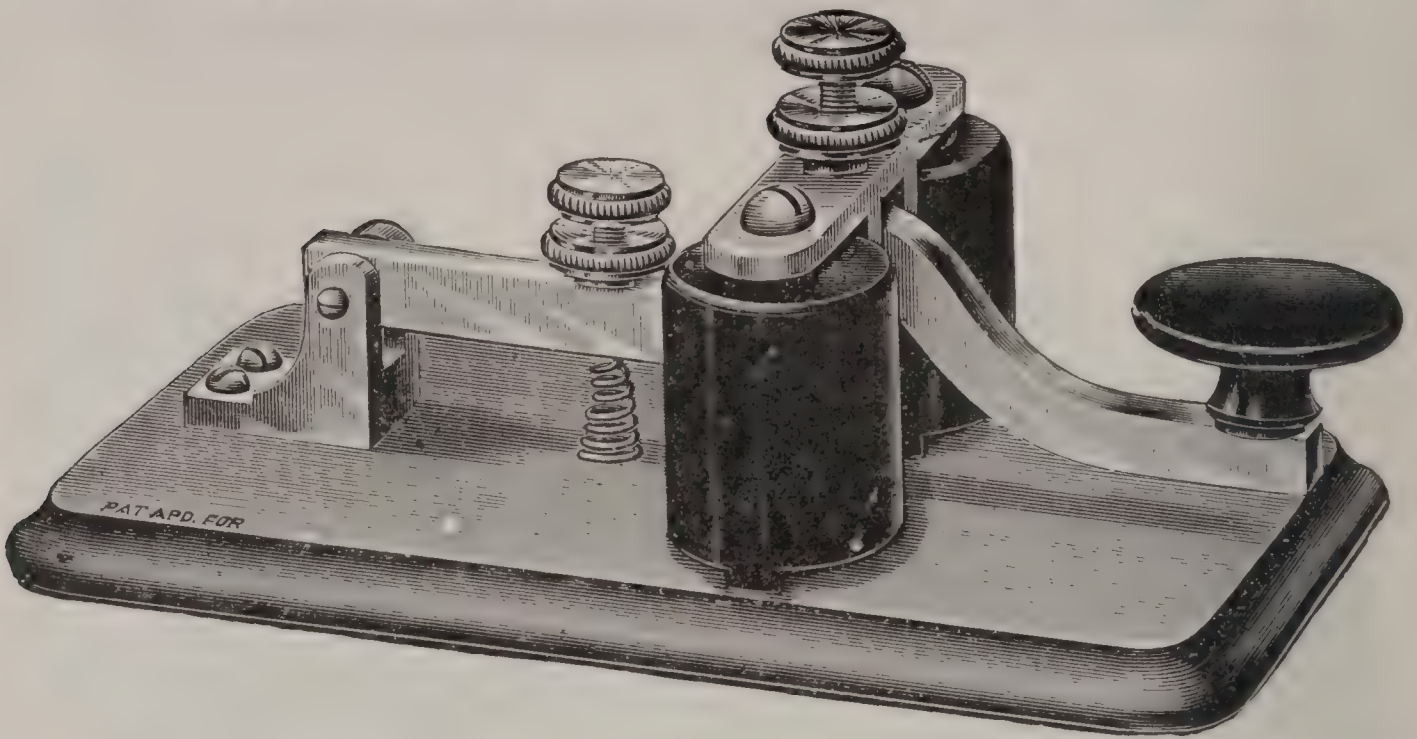
The set comprises our standard Improved Giant Sounder, finely finished, with rubber-covered coils, mounted on polished mahogany base, with our regular Steel Lever Solid Trunnion Key ; all highly polished and lacquered.

The practical telegrapher appreciates the advantage of operating the best instruments made. It gives him a lead over the user of a cheaply constructed affair and the student will be better equipped for practical service after learning on this instrument as the sounders and keys are the standard styles adopted by the Postal and Western Union Telegraph Companies and leading Railroads.

A copy of "Philosophy and Practice of Morse Telegraphy" (96 pages), furnished gratis with each instrument.

List No.						Price.
182	Wound	5 Ohms,	Aluminum Lever	.....	each,	\$5.00
183	"	20	"	"	"	5.50
185	"	5	Brass	"	"	5.00
186	"	20	"	"	"	5.50

MECHANICAL TELEGRAPH INSTRUMENT.

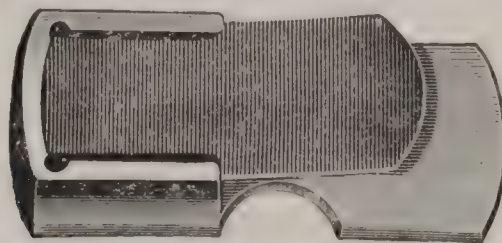


A mechanical set for learners requiring no battery whatever. It has a full size key, a complete set of adjustments and provided with special resonators that give the correct sounder "click" to the instrument.

Made in bronzed metal finish ; also in brass, nickel-plated.

List No.		Price.
194	Bronzed metal finish	each, \$1.50
195	Nickel-plated, brass.....	" 2.25

SNAPPER SOUNDERS.



(Cut full size.)

Makes a loud, sharp noise. The "click" being similar to telegraph sounders, Morse alphabet characters can be transmitted a considerable distance in or out doors by persons familiar with the art of telegraphy.

List No.		Price.
196	Snapper Sounder, complete.....	each, \$0.25

**Self-Starting and Self-Stopping
Ink Writing Fire Alarm Register.
Type R.**



Unless ordered to the contrary, the Fire Alarm Register will be Wound to 20 Ohms resistance for direct introduction on the main line.

List No. 197 Single Pen (20 Ohms).....each, \$75.00

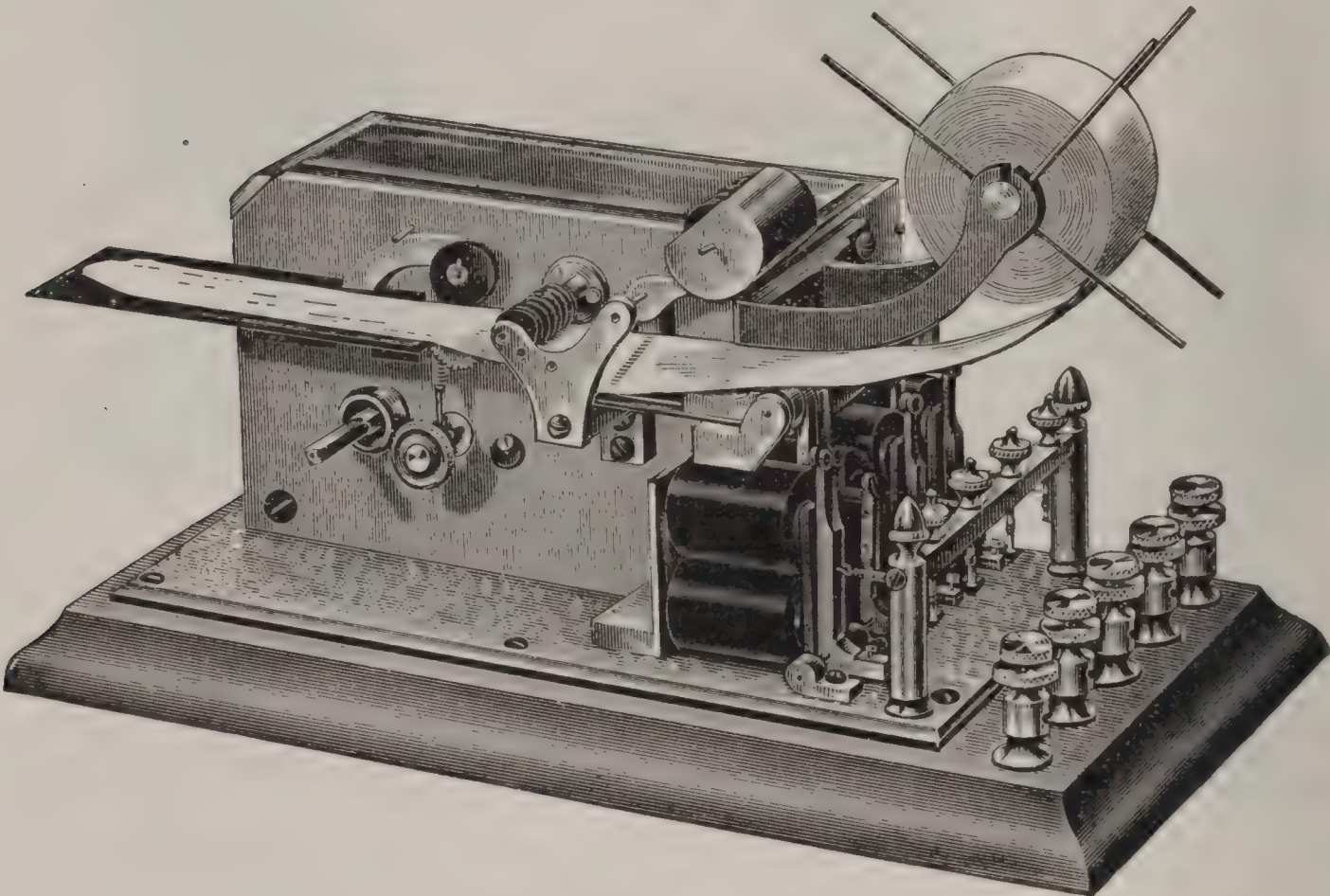
**Self-Starting and Self-Stopping
Ink Writing District Tele-
graph Register.
Type S.**



List No.	Price.	List No.	Price.
198 Single Pen.....each,	\$65.00	199 Double Pen.....each,	\$70.00

MULTIPLE PEN INK WRITING REGISTERS.

Type Q.



Self-Starting and Self-Stopping.

To meet the requirements of the Fire Alarm Service and special systems, the Self-Starting and Self-Stopping Ink Writing Registers are made to order with any desired number of pens, from one pen up to ten pens or more, each pen representing a distinct circuit, and making a separate record.

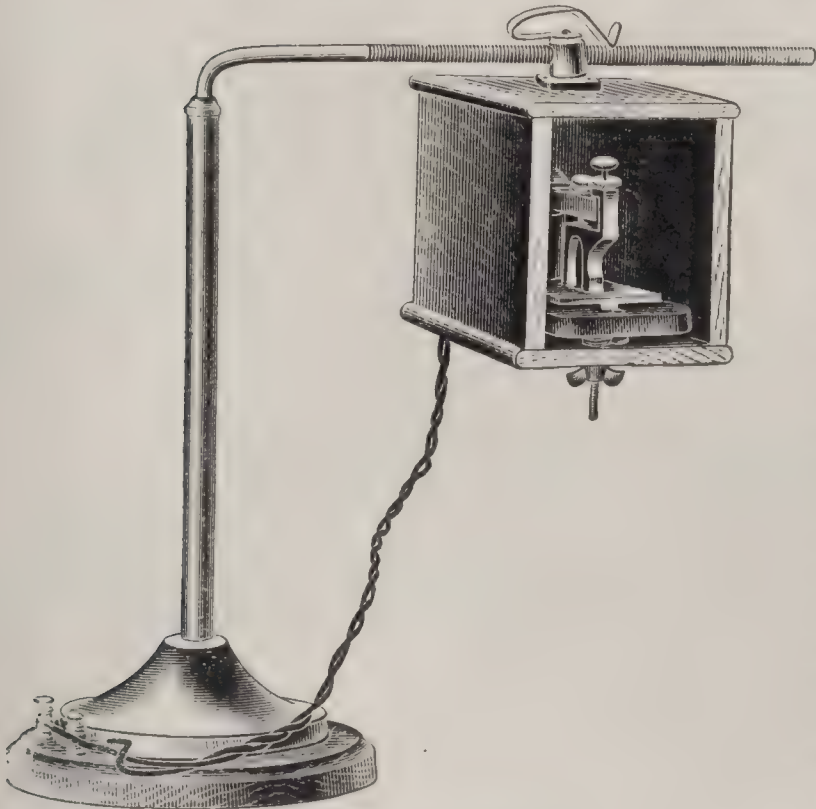
All records are made on a single paper tape or ribbon, the width of the tape being adjusted to the number of records to be imprinted thereon.

List No.	Price.	List No.	Price.
620 Three Pen.....	\$125 00	623 Six Pen.....	\$250 00
621 Four "	150 00	624 Eight "	400 00
622 Five "	200 00	625 Ten "	600 00

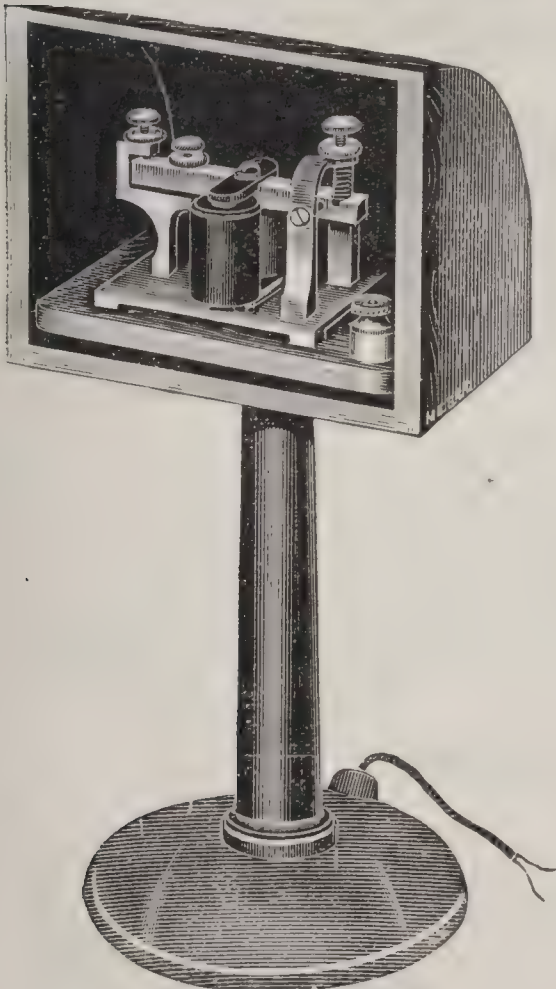
Register Parts and Supplies.

List No.	Price each.	List No.	Price each.
626 Winding Keys.....	\$1 00	636 Register Paper, 5 inch rolls, 1/4 inch wide, for District Telegraph work, on wooden bobbins...per lb.	\$0 22
627 Main Springs for Registers.....	2 00	637 Register Paper, 5 inch rolls, 1 inch wide, for District Telegraph work, on wooden bobbins...per lb.	20
628 Single Pen Inking Roller.....	50	638 Plate Glass Register Slides (state whether for side or top and the Style of Register).....	50
629 " " Printing "	50	639 Automatic Winder for 1/2 in. Paper...	4 50
630 Double " Inking "	60	640 " " " 1 " " ...	4 50
631 " " Printing "	75		
632 Dust Shield for Inking Wheel.....	75		
633 Register Ink.....per bottle,	25		
634 " "	per pint, 1 25		
635 " Oil.....per bottle,	25		

TELEGRAPH RESONATORS.



“PERFECT”
PORTABLE RESONATOR.



List No. 654.

This is the best reasonable priced Resonator made. The base of standard is broad and heavy. Conducting cords pass through the base and hollow standard.

List No.	Price.
654 Complete with Sounder and 6 ft. Cord.	\$4 50
655 Resonator and Base only	2 50

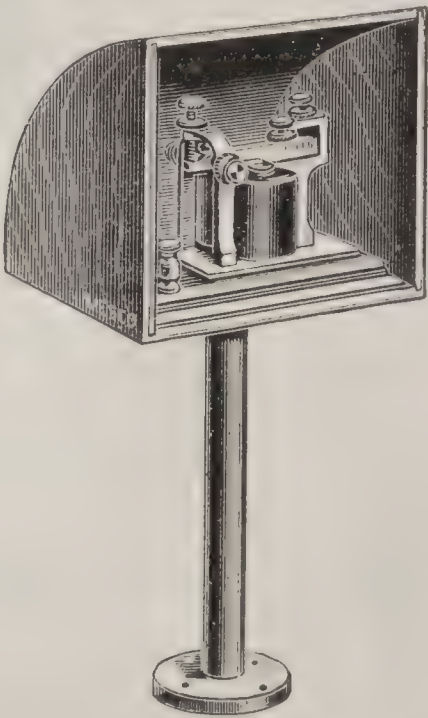
ADJUSTABLE RESONATOR
FOR LOCAL SOUNDER.

The position of the Sounder, incased in the Resonator, which greatly increases and concentrates the sound, is adjustable both as to its height and lateral place, so as to be entirely convenient to the receiving operator, without affecting the work at other instruments, the sound being almost entirely confined to the immediate locality of the instrument.

Especially adapted for receiving operators using the typewriter and for noisy railway stations, or for all situations where the sound of the instrument is subject to interference from outside noises.

List No.	Price
661 Complete with Cord and Sounder	\$6 25
662 Without Sounder	4 00

BRITISH P. O. PATTERN.



List No. 666.

This type is arranged to be screwed to the desk. Conducting Cord passes through the hollow standard.

List No.	Price.
666 Complete with Sounder (no Cord)	\$4 75
667 Cord only	40
668 Resonator without Sounder or Cord.	2 50

KEY SOUNDER AND RELAY PARTS.

	Price.
KEY..... Lever only Nickel-plated, without Knob.....	each, \$0 30
Leg Bolts with Wing Nuts.....	" 30
Circuit Closer, with Knob.....	" 15
Key Knobs, 1 1/8 inch diameter.....	" 10
Trunnion Screw and Set Nut.....	" 10
Lever Springs.....	" 02
Platinum Points.....	" 10
Switch Knobs.....	" 05

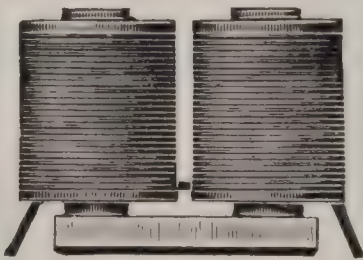
GIANT SOUNDER	Wood Base, Polished.....	each, \$0 15
	Springs.....	" 05
	Armatures.....	" 20
	Magnet Covers.....	" 10
	Levers, Aluminum or Brass.....	" 50

When ordering Levers, state whether for use with Old type Yoke, which has adjustment screw in centre of arch, or with New type, where adjustment screw is on an extension projecting from the top of the arch.

RELAY....	Wood Base.....	each, \$0 25
	Surbase.....	" 20
	Adjustment Screw, with Platinum Point.....	" 20
	Adjustment Screw, with Hard Rubber Point.....	" 15
	Adjustment Spring for Armature.....	" 05
	Armatures.....	" 30
	Magnet Covers.....	" 20
	Front Adjustment, complete.....	" 60
	Back Adjustment, Post and Nut.....	" 30
	Steel Springs.....	" 10
	Trunnion Screws.....	" 05

When ordering Relay parts, state whether for use with List Nos. 119 or 125.

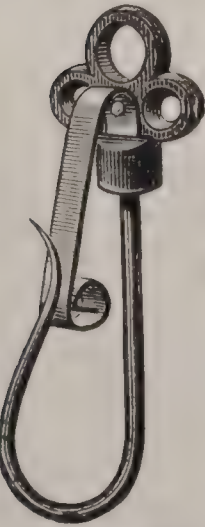
INSTRUMENT MAGNETS.



Sounder and Pony Relay Size.			Standard Relay Size.		
List No.		Price.	List No.		Price.
4994	5 Ohms resistance.....	\$1 00	4998	50 Ohms resistance.....	\$3 50
4995	20 " ".....	1 50	4999	100 " ".....	4 50
4996	40 " ".....	2 00	5000	150 " ".....	5 00
4997	50 " ".....	2 50	5001	400 " ".....	5 00
Rubber Covered, 15 cents extra.			Rubber Covered, 25 cents extra.		

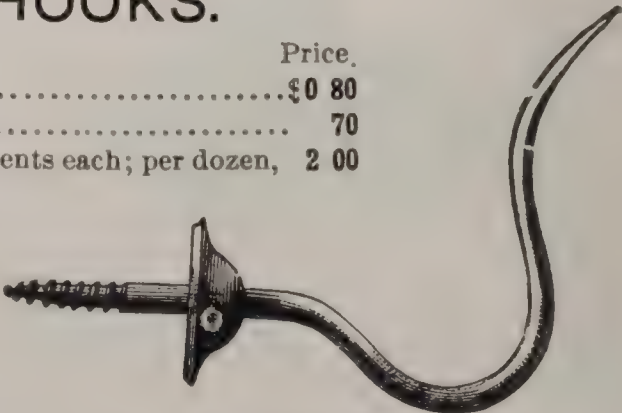
Special Magnets to order, any size.

MESSAGE HOOKS.



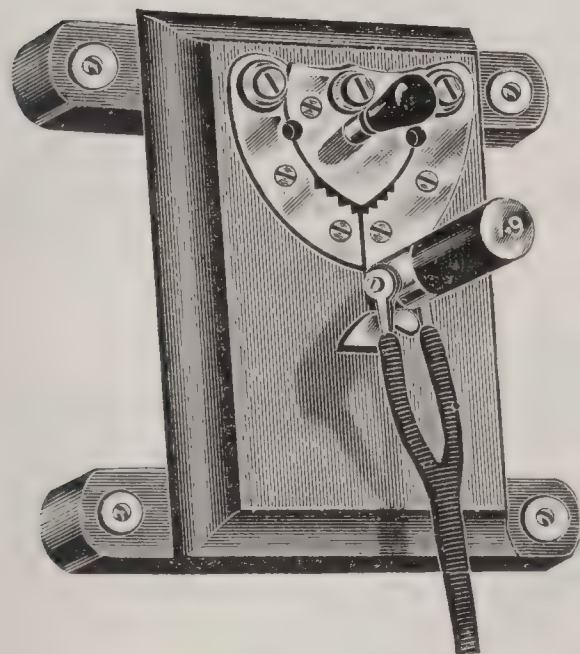
List No. 4786

List No.	Price.
4785 Steel, nickel-plated, per dozen.....	\$0 80
Plain, per dozen.....	70
4786 Security Message Hook.....	20 cents each; per dozen, 2 00



List No. 4785

UNION SPRING CUT-OUT AND
LIGHTNING ARRESTER.

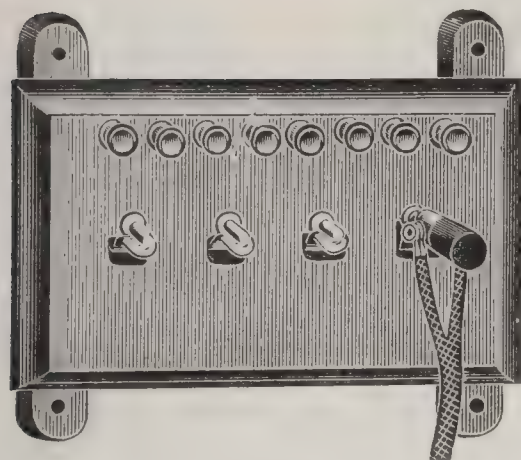


List No. 733.

This adaptation of our patent spring jack fills the place in telegraphic apparatus of the old form known as plug switch, and is the best spring Cut-Out for city "branch offices" or "way offices," where it is not required at any time to make cross connections of wires or other changes besides simply changing instruments from one line to another with plug and cord,

List No.	Price.
733 One Line without Plug and Cord.....	\$2 00
734 Two Lines " " "	4 00
735 Three Lines " " "	6 00
736 Plugs with 3 feet Cord attached, each.	1 75

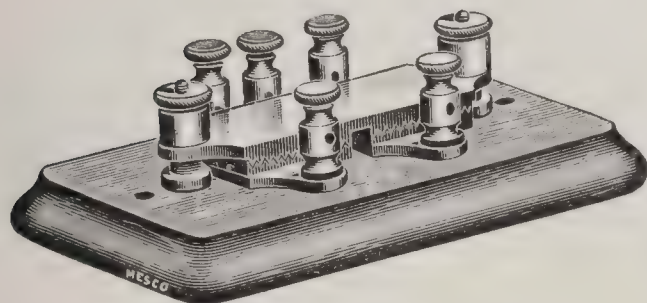
FOUR WIRE SPRING
CUT-OUT.



List No. 740.

Patent Spring Cut-Out without lightning arresters, for testing station cable houses, or for any situation where it is desired to connect a single instrument to any one of a number of lines by inserting plug. The insertion of plugs puts instruments in circuit. Withdrawal of plug cuts out reliably.

List No.	Price.
737 One Wire, without Plug or Cord.....	\$1 25
738 Two Wires, " " "	2 25
739 Three Wires, " " "	3 00
740 Four Wires, " " "	3 60
Five Wires and over, per Line	60
736 Plug and 3 feet Cord	1 75
747 2-foot Cords, Plug on each end.....	2 75

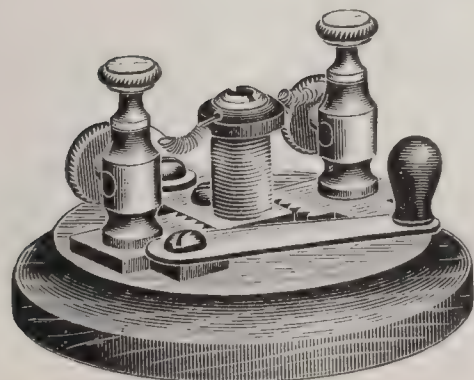


List No. 992.

HEAVY PLATE
LIGHTNING ARRESTER.

This type is used by the Western Union Telegraph Company, and gives perfect results.

List No.	Price.
992 Arrester complete.....	\$2 50



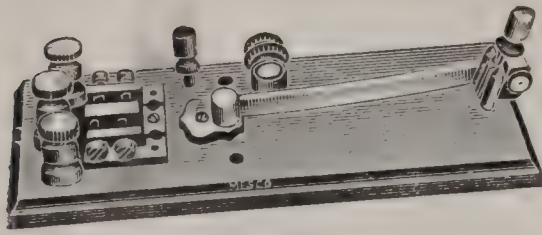
List No. 993.

QUADRUPLIX
LIGHTNING ARRESTER.

This Arrester is intended for use on the instrument table as a protector for the relays used in duplexing and quadruplexing.

List No.	Price.
993 Arrester complete, each.....	\$1 00
994 Extra Spools	30

SPRING PLUG CUT-OUTS.

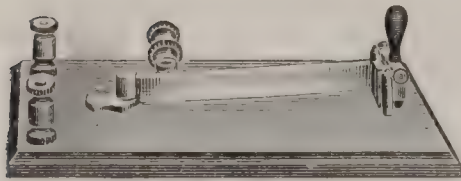


List No. 731.

FULL PLUG CUT-OUT.

With Lightning Arrester. This instrument complete with Plugs, Ground Wire Switch and Pin. Is mounted on highly polished mahogany base. Nickel-Plated.

List No.	Price.
731 Cut-Out complete.....	\$4 25

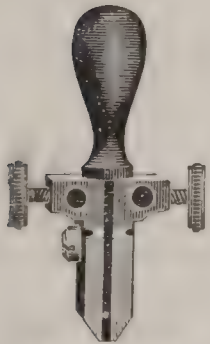


List No. 729.

PLAIN PLUG CUT-OUT.

Complete with Plug. Mounted and finished same as above. Made Single and Double.

List No.	Price
729 Single Cut-Out	\$2 50
730 Double "	5 00

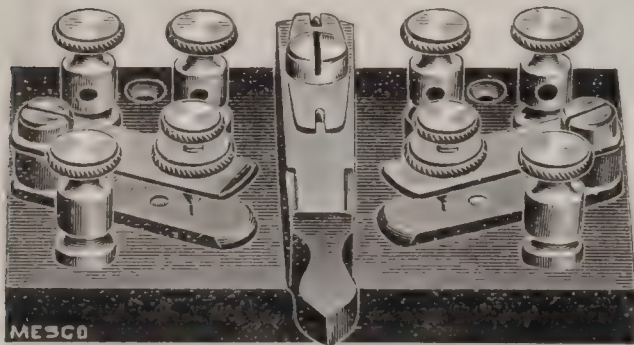


List No. 728.

CUT-OUT PLUG.

Nickel-Plated.

List No.	Price.
728 Plug only.....	\$0 80



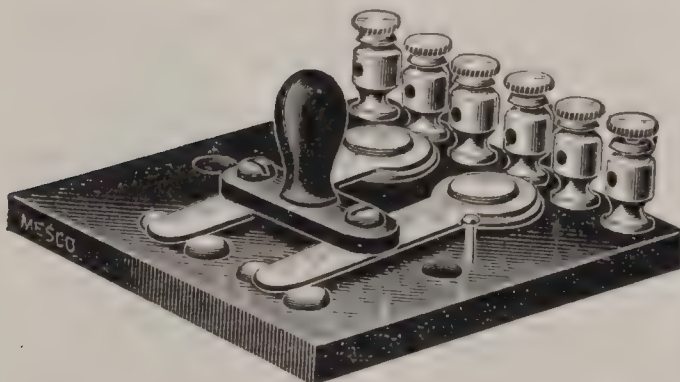
List No. 732.

QUICK SWITCH.

This is one of the most useful and perfect switches ever devised for throwing an instrument from one line into another by a single movement of the lever without making the slightest break in either circuit.

It can also be used as a *Cut-Out Switch* in place of the Plain Plug Cut-Out. The Quick Switch is mounted on a handsome polished hard rubber base.

List No.	Price.
732 Quick Switch.....	\$6 80



POLE CHANGING SWITCH. Hard Rubber Base.

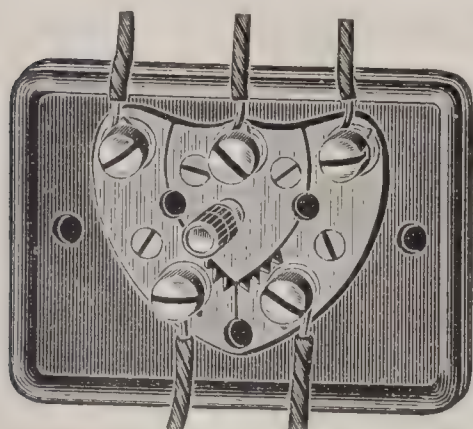
All metal parts made of brass, nickel-plated. Polished rubber knob and base.

List No.	Price.
1648 With Binding Posts.....	\$1 65
1649 Without Binding Posts.....	1 40

Wood Base.

Walnut or Oak polished bases, metal parts nickel-plated.

List No.	Price.
1650 With Binding Posts	\$1 05
1651 Without Binding Posts	80

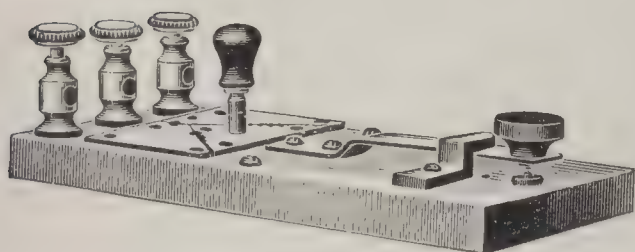


List No. 749.

UNION LIGHTNING ARRESTER AND GROUND WIRE SWITCH.

Serves as Peg Cut-Out, Lightning Arrester and Ground Wire Switch. It is an excellent and cheap form for amateur and all short lines.

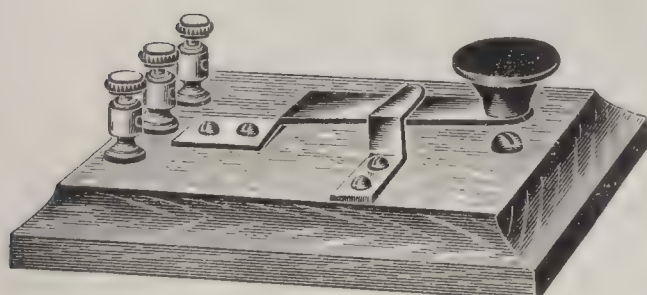
List No.	Price.
749 With Pin, complete	\$0 75



List No. 1588.

COMBINED SIGNAL STRAP KEY AND LIGHTNING ARRESTER.

List No.	Price.
1588 Open Circuit or downward Contact.	\$1 50
1589 Closed " " upward "	1 50
1590 Double " " both up and down "	1 75

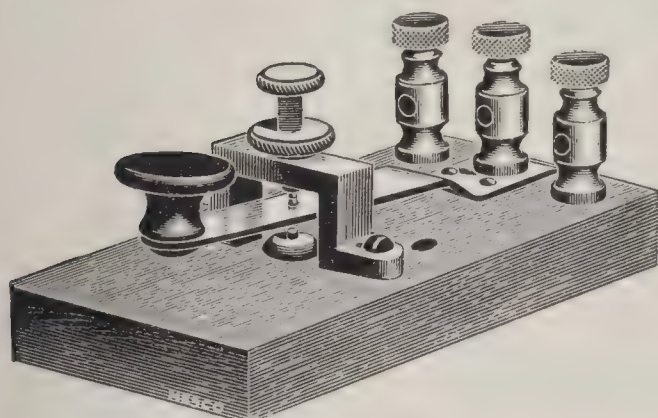


List No. 1593.

STRAP OR SIGNAL KEYS.

Open and closed circuit keys have two binding posts. Double circuit has three posts. Made with walnut or oak base.

List No.	Price.
1591 Open Circuit.....	\$0 65
1592 Closed "	60
1593 Double "	75

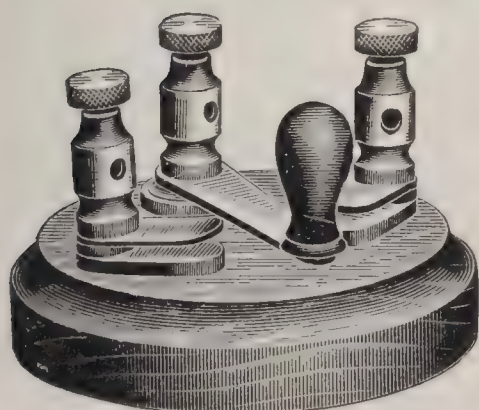


List No. 1022.

WESTERN UNION TYPE HEAVY STRAP KEY.

Made for heavy work and will stand hard usage. Intended for telegraph and block signal work. Has large platinum contacts.

List No.	Price.
1020 Open Circuit.....	\$1 00
1021 Closed "	1 00
1022 Double "	1 25

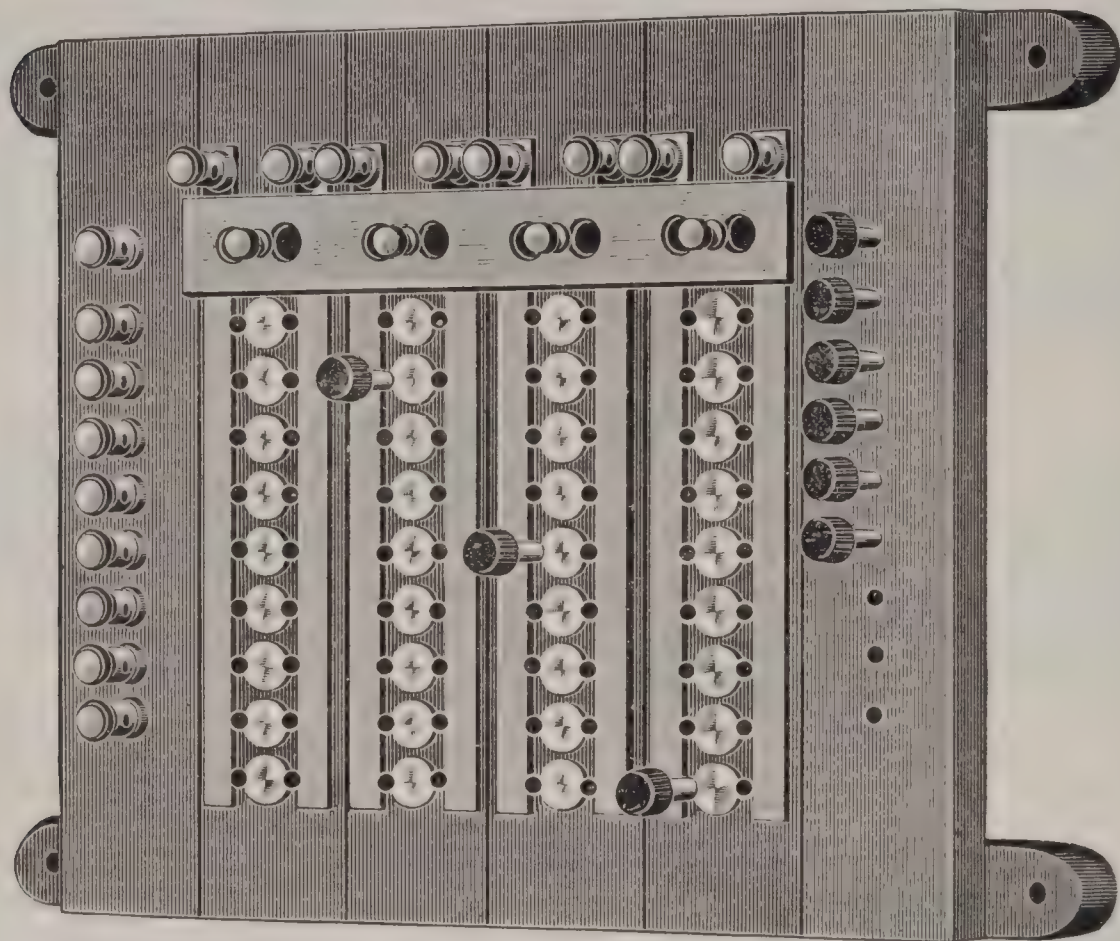


List No. 1024.

TWO POINT SAFETY CONTACT SWITCH OAK BASE.

List No.	Price.
1024 Switch	\$0 50

TELEGRAPH SWITCHES.



WESTERN UNION "BUTTON" SWITCH WITH "PLATE" LIGHTNING ARRESTER.

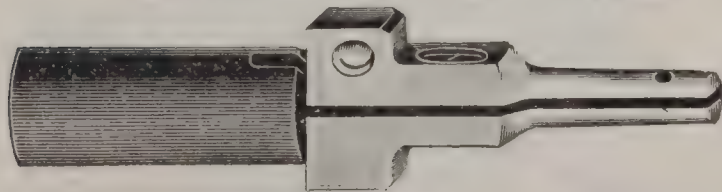
These Switches are now regarded as a standard article, having been generally adopted by the Western Union Telegraph Company, the Postal Telegraph Company, as well as by many other corporations having extensive systems of wires.

In ordering for large offices it will only be necessary to give the number and changes of wires, loops, batteries and instruments to be provided for. We have unusual facilities for the prompt and perfect construction of Switches to meet all the requirements of large offices.

List No						Price.
714	1	Wire Way,	2	perpendicular bars	.....	\$ 3 00
715	2	"	4	"	.....	6 00
716	3	"	6	"	.....	10 00
717	4	"	8	"	.....	14 00
718	5	"	10	"	.....	18 00
719	6	"	12	"	.....	25 00
720	7	"	14	"	.....	30 00
721	8	"	16	"	.....	38 00
722	10	"	20	"	.....	55 00
723	12	"	24	"	.....	74 00

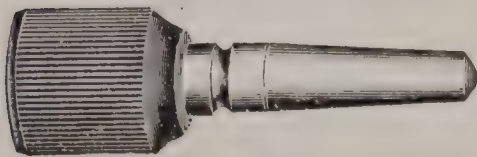
Over 24 bars, prices upon application.

LOOP PINS AND SWITCH PLUGS.



List No. 726.

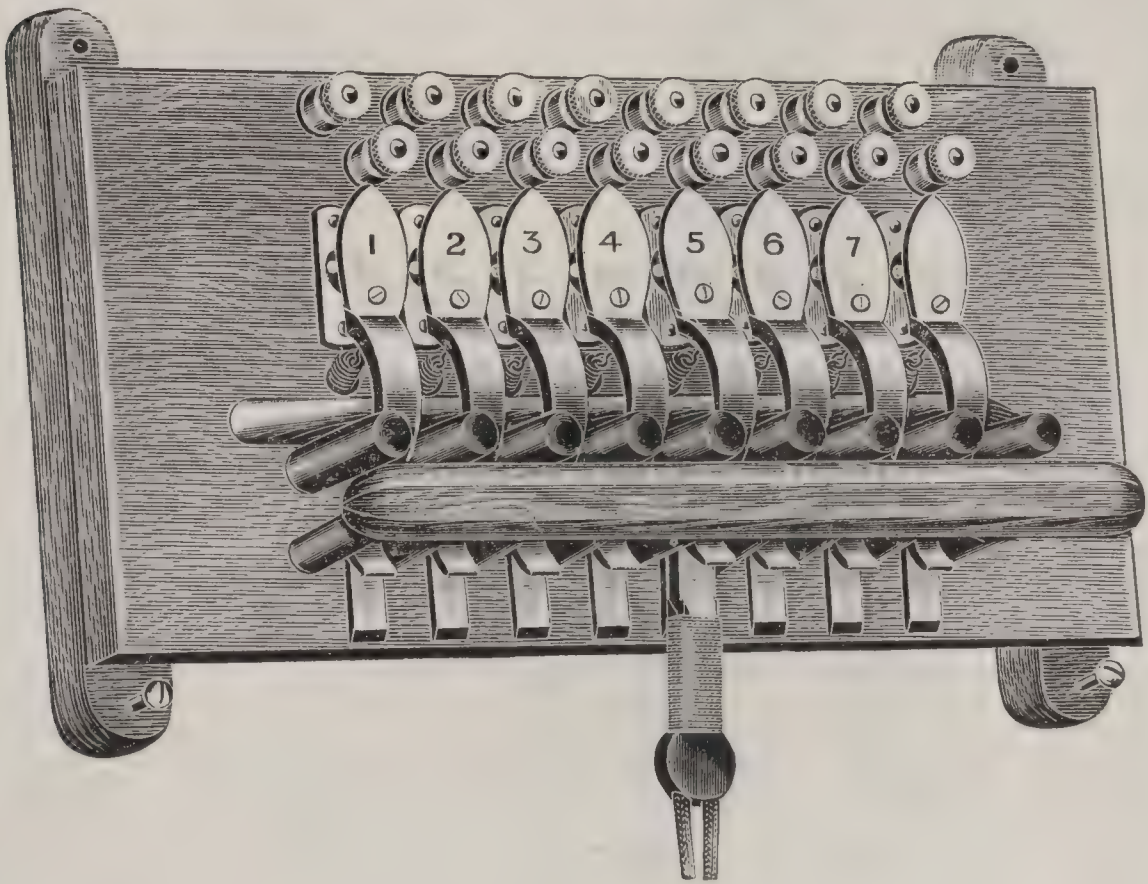
List No.	Price.
726 Loop Pins.....	\$1 25



List No. 727.

List No.	Price.
727 Switch Pins.....	\$0 20

WESTERN UNION SPRING JACK, WITH WEDGE AND CORD.



THE ABOVE ILLUSTRATION SHOWS OUR EIGHT LINE
SPRING JACK WITH WEDGE AND CORD.

List No.	Price.
240 Per Line	\$3 50
241 Wedge, with 4 ft. Cord, extra	2 50
242 Heavy, Flexible, Two Conductor Silk Cord.....Per yard,	50

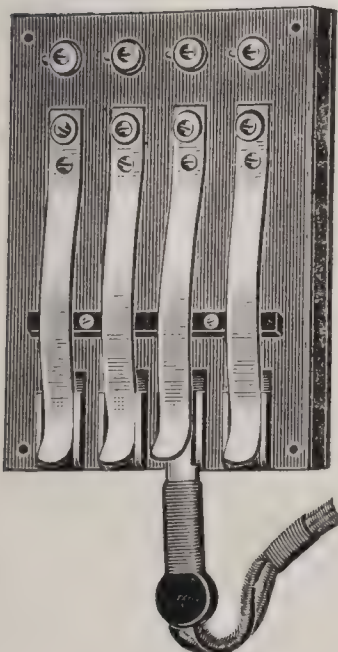


TABLE JACK SWITCHES.

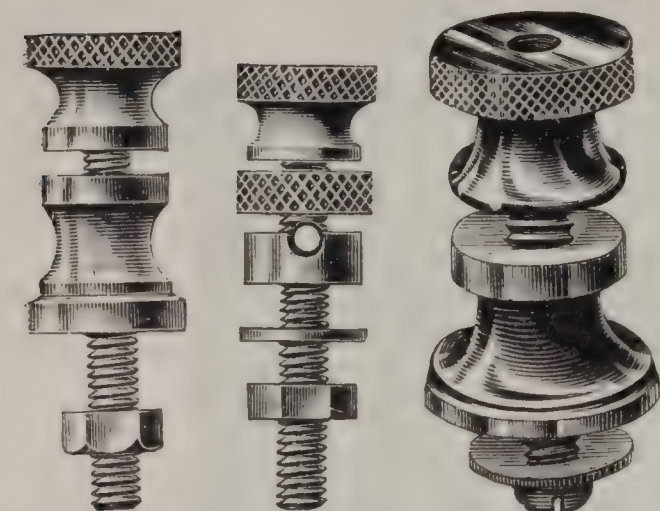
This is a very handy article for switching a Resonator Set of instruments to any desired line.

Cut shows a four line Jack with Wedge.

List No.	Price.
243 Four Line Table Jack only.....	\$4 00
Additional Lines.....Per line,	1 00
241 Wedge, with 4 ft. Cord, extra.....	2 50

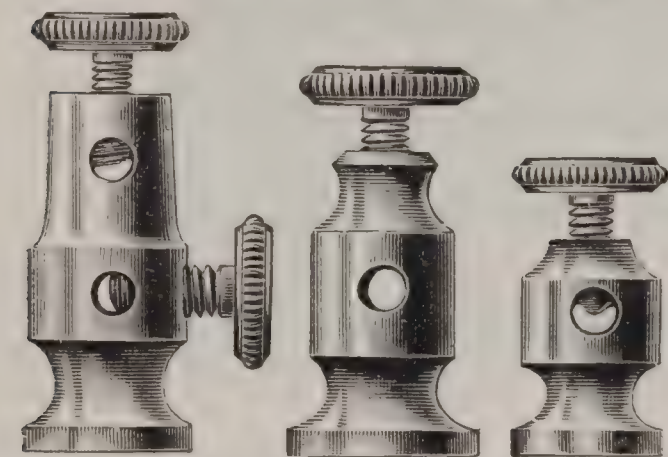
BINDING POSTS.

These Binding Posts are made of brass and can be furnished in plain brass or nickel-plate at same price.



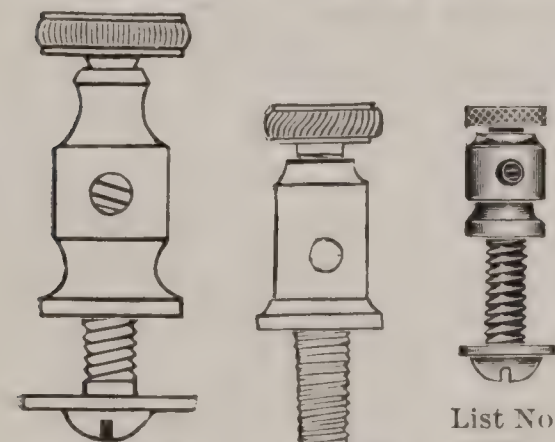
List No. 4820. List No. 4821. List No. 4835.

List No.	Price.
4820 Nickel-plated.....	\$0 15
4821 " "	20
4835 English pattern, nickel-plated	20



List No. 4834. List No. 4823. List No. 4822.

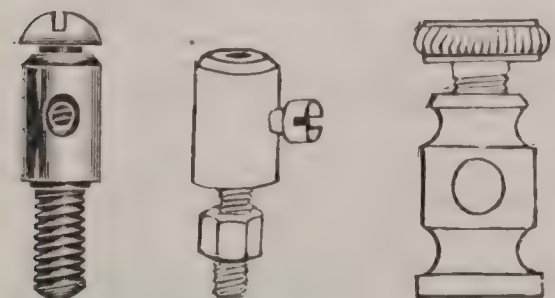
List No.	Price.
4834 Nickel-plated.....	\$0 20
4823 " "	12
4822 " "	10



List No. 4830. List No. 4826.

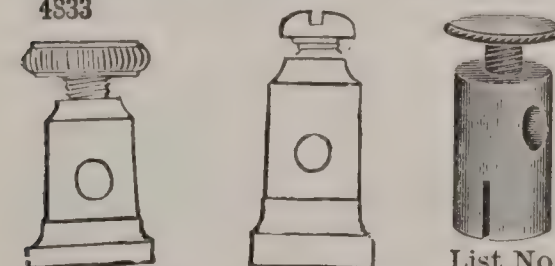
List No. 4832.

List No.	Price.
4830 Nickel-plated.....	\$0 08
4826 " "	07
4832 " "	04



List No. 4833. List No. 4829. List No. 4825.

List No.	Price.
4833 Nickel-plated.....	\$0 07
4829 " "	07
4825 " "	08

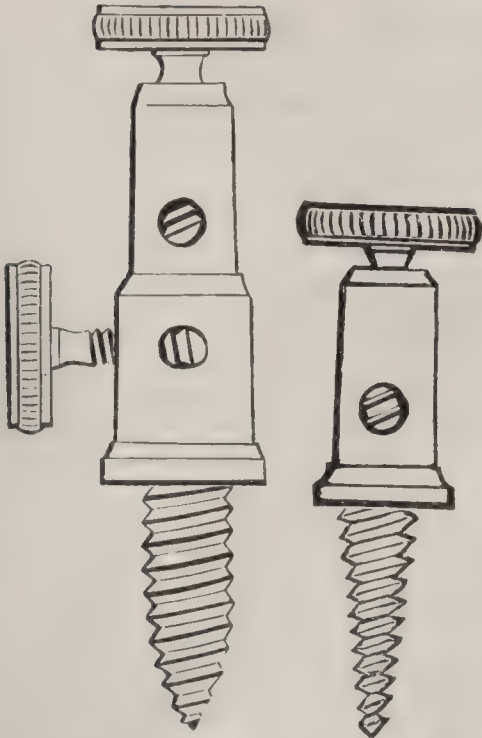


List No. 4827. List No. 4828.

List No. 4846.

List No.	Price.
4827 Nickel-plated.....	\$0 07
4828 " "	07
4846 Zinc Connector for Dry Battery.....	05
4847 Knurled Head Screw only for above.....	03

Special prices for quantities of 1000 or more.



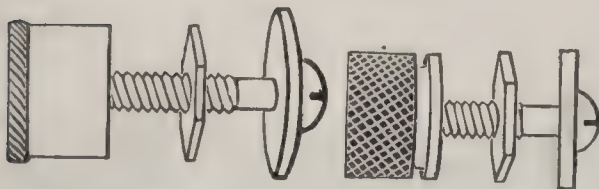
List No 4831.

List No 4824.

BINDING POSTS AND CONNECTORS.

These Binding Posts are made of brass and can be furnished in plain brass or nickel-plated at same price.

List No.	Price.
4831 Nickel-plated.....	\$0 25
4824 " "	12



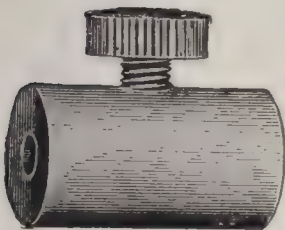
List No. 4837.

List No. 4836.

CONNECTORS.

Carbon Connectors for Dry Battery.

List No.	Price.
4836 Brass.....	\$0 05
Connector for Leclanche Plates.	
4837 Brass.....	05

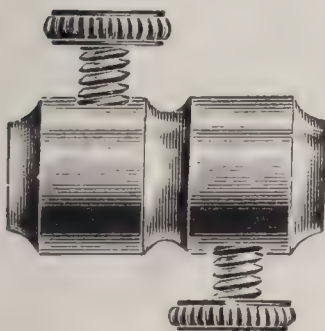


List No. 4871.

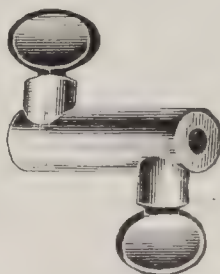
SINGLE CONNECTORS.

For sizes No. 16 and Finer.

List No.	Price.
4871 Brass.....	\$0 10



List No 4869.



List No. 4870.

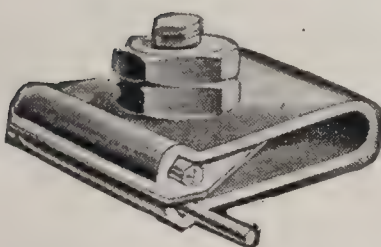
DOUBLE CONNECTORS.

For sizes No. 12 and Finer.

List No.	Price.
4870 Brass.....	\$0 15
4869 "	15

PEIRCE TEST CONNECTOR.

Wires are held securely with solid Copper Connections between, no rocking motion when wires of unequal diameters are clamped as they are centered directly one above the other. Made of Spring Brass.



List No. 4848.

List No.	Price.
4848 Connector per 100.....	\$10 00

WIRE CONNECTORS.
AMERICAN DOUBLE TUBE CONNECTOR.



DOUBLE TUBE CONNECTOR BEFORE TWISTING.



DOUBLE TUBE CONNECTOR AFTER TWISTING.

For Copper Wire.

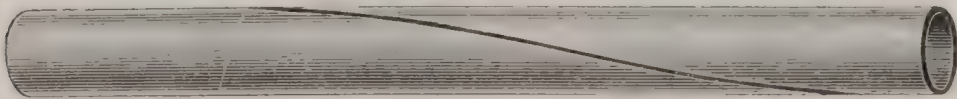
List No.				Per 100,	Price.
8990	For No. 16, B. & S.				\$5 00
8991	" 14,	"		"	5 50
8992	" 12,	"		"	6 00
8993	" 10,	"		"	6 50
9059	" 9,	"		"	7 00
9060	" 8,	"		"	7 50
9061	" 7,	"		"	8 00
9062	" 6,	"		"	9 00

For Iron Wire.

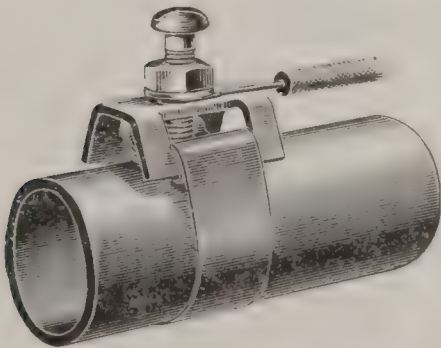
List No.			Per 100,	Price.
8994	For sizes 12 to 10, B. W. G.			\$5 50

For Combination Connectors, add \$4.00 per 1000 to list price of larger size of combination.
For Split Joints, add \$4.00 per 1000 to list price on standard size.
For half lengths deduct 40 per cent from full length price.

PAPER SLEEVES.



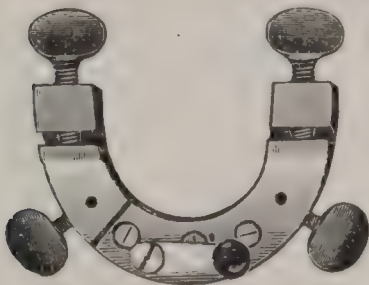
List No.			Per 100,	Price.
9065	Sleeves, 3 inch lengths			\$0 30
9066	" 18 "		"	1 50



NEW YORK GROUND CLAMP.

For connecting telegraph and telephone ground wires to pipes or cables. A very handy and positive connector.

List No.		Price.
9067	Ground Clamp	\$0 50



LINE TAPPING CLAMP WITH CIRCUIT CLOSER.

For establishing a temporary office anywhere on the line.

List No.		Price.
4794	Clamp	\$3 50



POLE COUNTER.

Small, well made and accurate. Counts to 990 and repeats. This article will be found very useful for inspectors, line constructors, etc. Nickel Plated.

List No.		Price.
4791	Pole Counter	\$2 50

W. U. TYPE FUSIBLE CUT-OUTS.

FOR PROTECTION AGAINST DAMAGE BY LIGHTNING
OR HEAVILY CHARGED WIRES.



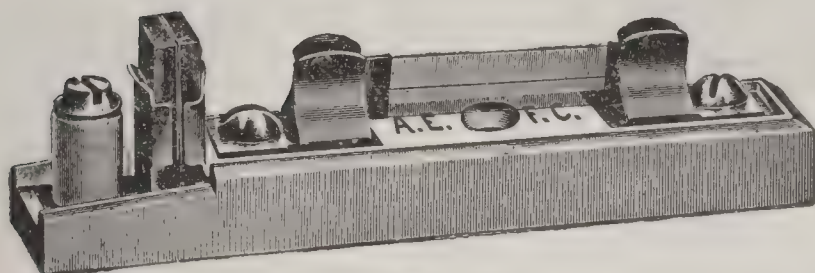
List No. 918.

List No.	Price.
918 Single Pole Fuse Block and Lightning Arrester. Without fuse	each, \$0.15
No. 919 Fuse used with No. 918 Block.	



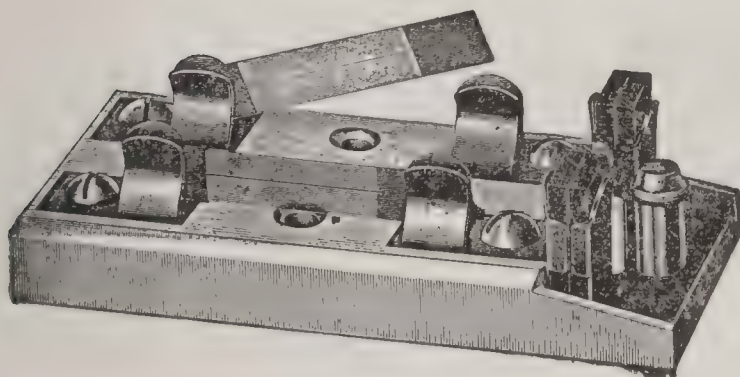
List No. 951.

List No.	Price.
951 Double Pole Fuse Block and Lightning Arrester with ground plate. Without fuses	each, \$0.30
No. 972 Fuse used with No. 951 Block.	



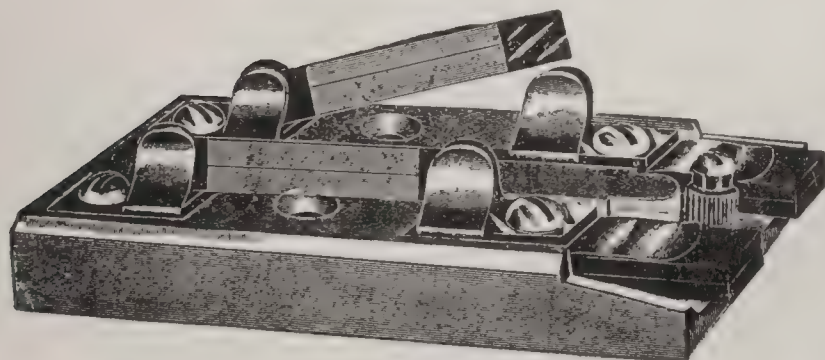
List No. 958.

List No.	Price.
958 Single Pole Fuse Block and Carbon Lightning Arrest. Without fuses, each	\$0.20
No. 988 Fuse used with No. 958 Block.	



List No. 959.

List No.	Price.
959 Double Pole Fuse Block and Carbon Lightning Arrester. Without fuses	each, \$0.40
No. 988 Fuse used with No. 959 Block	



List No. 986.

List No.	Price.
986 Double Pole Fuse Block and Carbon Lightning Arrest. Without fuses, each	\$0.40

Use No. 988 Fuse with this Block.

POSTAL TYPE FUSIBLE CUT-OUTS.

FOR PROTECTION AGAINST DAMAGE BY LIGHTNING
OR HEAVILY CHARGED WIRE.



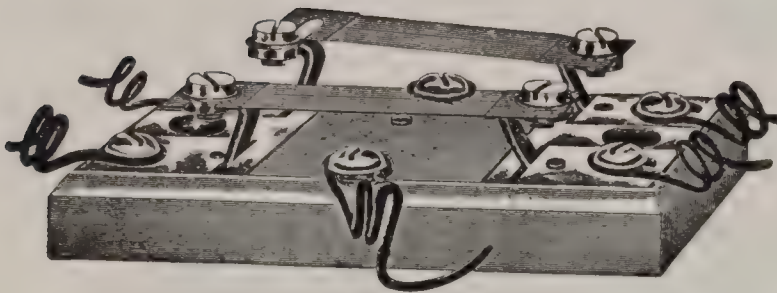
List No. 920.

List No.

Price.

920 Single Pole Fuse Block and
Lightning Arrester.
Without fuse..... each, **\$0.15**

Use No. 921 Fuse with this Block.



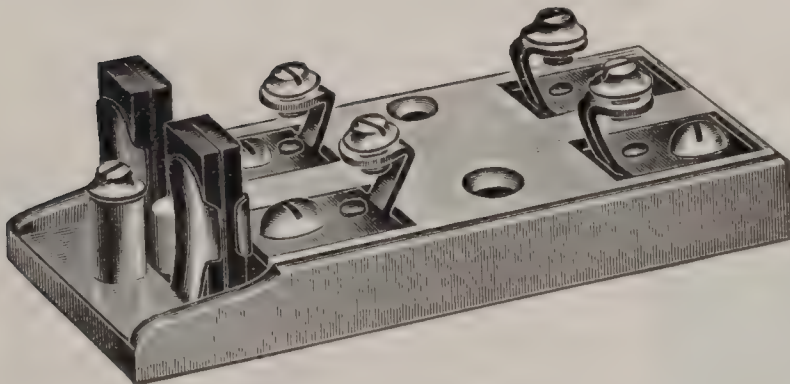
List No. 954.

List No.

Price.

954 Dble. Pole Fuse Block
with ground plate.
Without fuses..each, **\$0.30**

Use No. 973 Fuse with this Block.



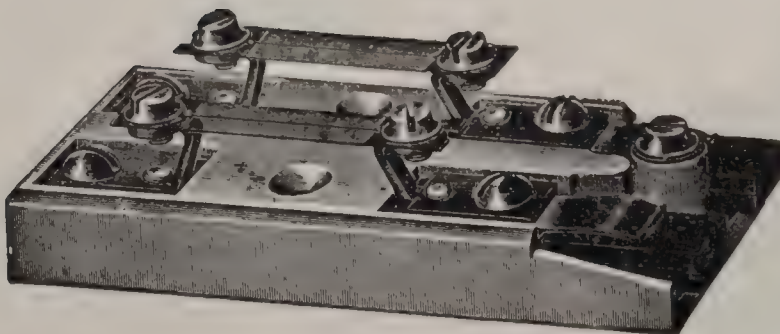
List No. 989.

List No.

Price.

989 Dble. Pole Fuse Block
and Carbon Lightning
Arrester.
Without fuse...each, **\$0.40**

Use No. 911 Fuse with this Block.



List No. 990.

List No.

Price.

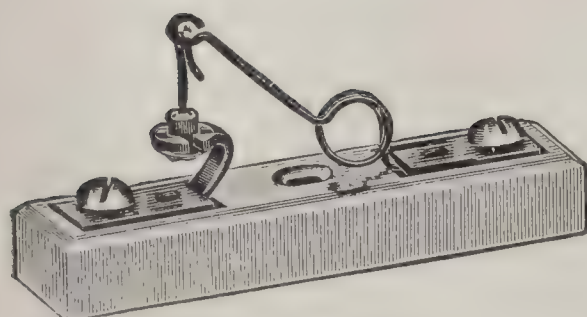
990 Dble. Pole Fuse Block
and Carbon Lightning
Arrester.
Without fuse...each, **\$0.40**

Use No. 911 Fuse with this Block.

FUSIBLE CUT-OUTS

WITH SNEAK CURRENT PROTECTORS AND LIGHTNING ARRESTERS.

Porcelain Base. Brass Mountings.

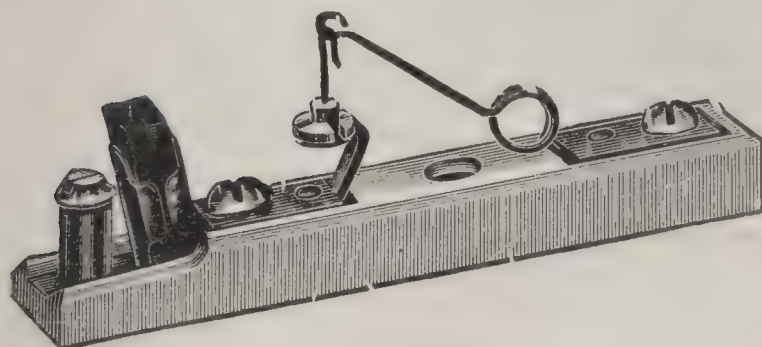


List No. 961.

Single Pole Protector.

List No.	Price.
961 Single Pole without heat coil, each.....	\$0.15

Use No. 980 Heat Coil.



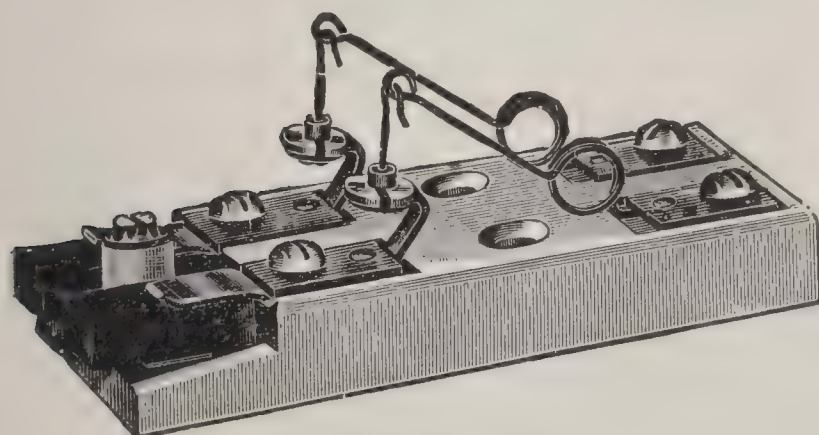
List No. 962.

Combination Protector

with Carbon Lightning Arrester.
Single Pole.

List No.	Price.
962 Single Pole without heat coil..... each,	\$0.20

Use No. 980 Heat Coil.



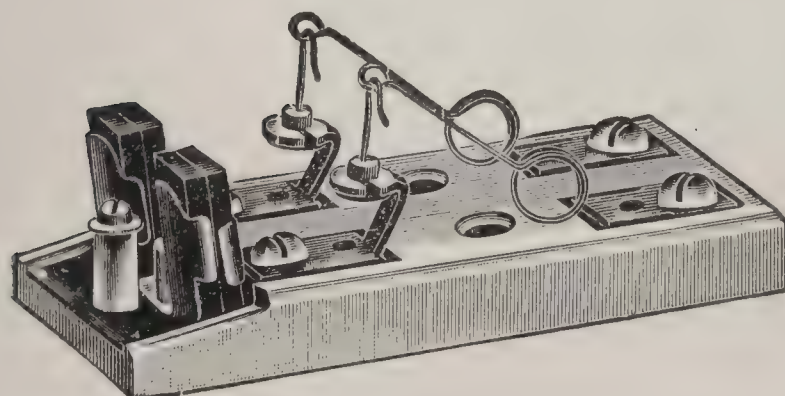
List No. 963.

Combination Protector

with Carbon Lightning Arrester
Double Pole.

List No.	Price.
963 Double Pole with- out heat coil..each,	\$0.40

Use No. 980 Heat Coil.



List No 964.

Combination Protector

with Carbon Lightning Arrester.
Double Pole.

List No.	Price.
964 Double Pole without heat coil.....each,	\$0.40

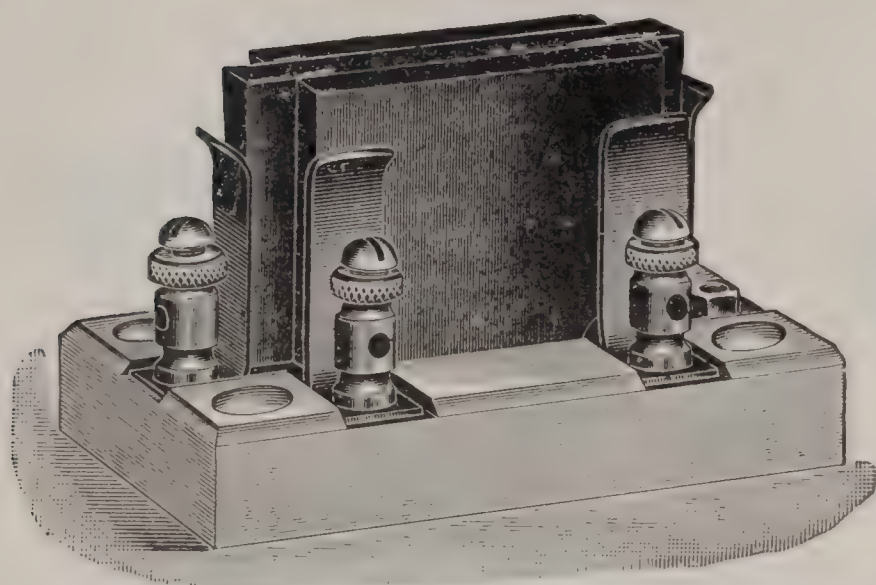
Use No 980 Heat Coil.

CARBON LIGHTNING ARRESTERS.

Porcelain Base.

Brass Mountings.

Upright Carbons.

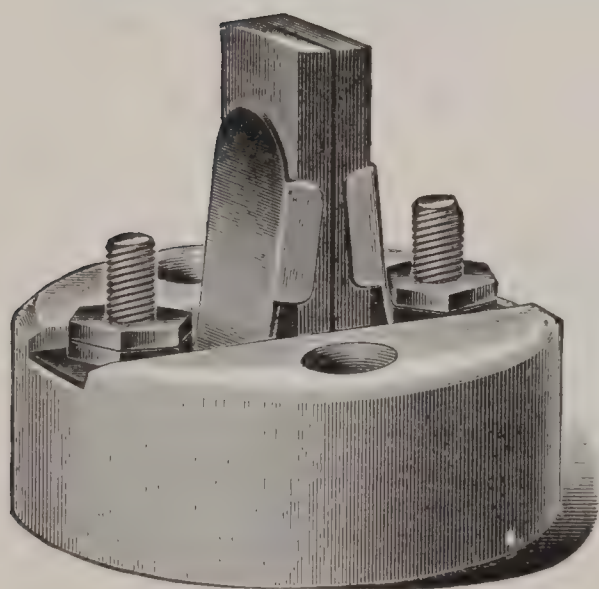


List No. 400.

Toll Line Lightning Arrester.

This type of Arrester affords a large carbon surface, and we recommend it for use on toll lines and bridging circuits where it acts as a lightning arrester and also an induction killer.

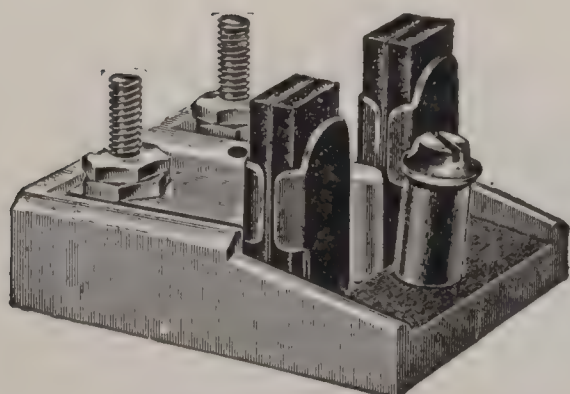
List No.	Price.
400 Double Pole, each.....	\$0.40



List No. 200.

Improved Single Pole Lightning Arrester.

List No.	Price.
200 Single Pole.....	each, \$0.15



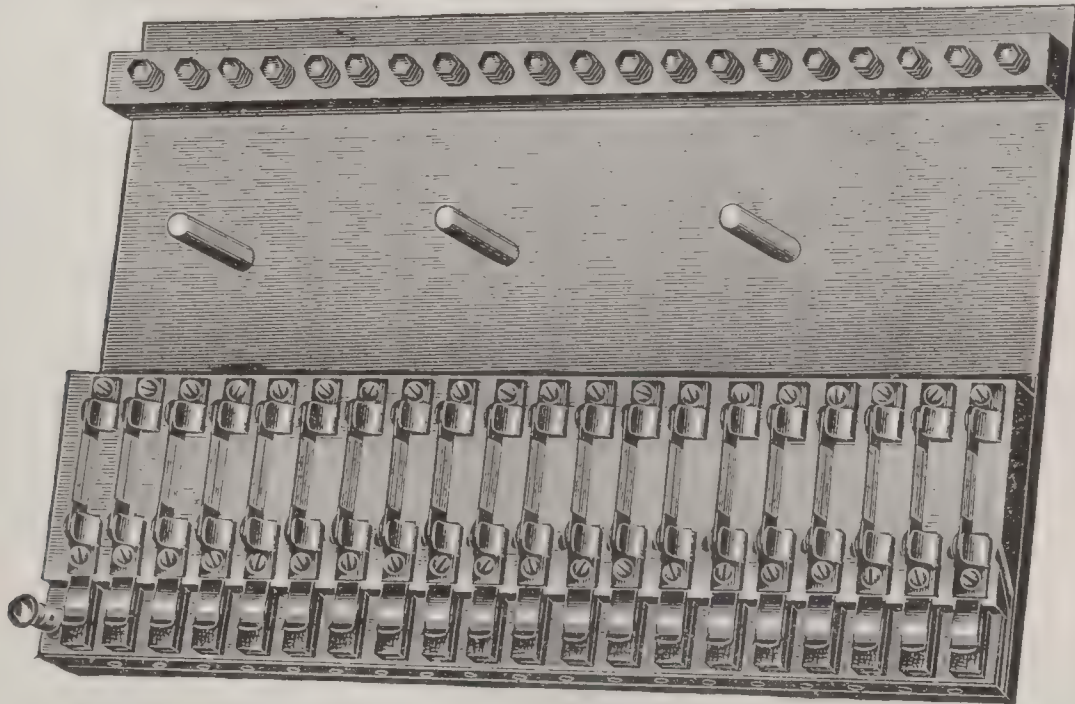
List No. 923.

Double Pole Bobtail Lightning Arrester.

List No.	Price.
923 Double Pole.....	each, \$0.30

FUSIBLE CUT-OUT AND LIGHTNING ARRESTER.

DISTRIBUTING BOARD WITH CARBON LIGHTNING ARRESTER.



List No. 913.

This board can be used as a distributing, transfer and lightning protector board. The protector strip is made of highly finished birch, the mountings are of heavy brass, the transfer strip connections are made with brass lock nut binding posts having four (4) nuts and four (4) washers on same for holding wires. This board for fifty lines occupies a space 10 inches wide and 40 inches long.

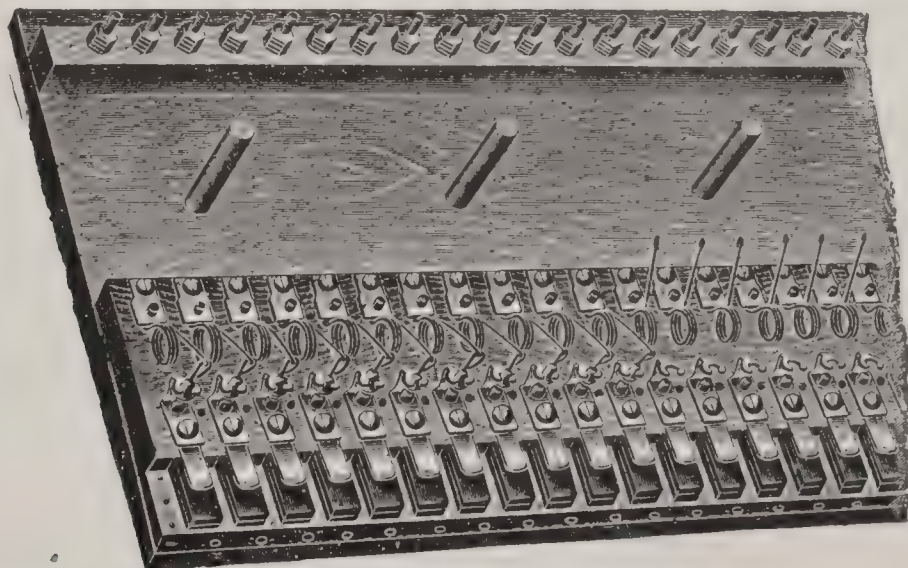
No. 988 Fuse is used with No. 913 Distributing Board,

List No.

Price.

913	Per line—single line, without fuses.....	\$0.40
915	“ “ —full metallic circuit, without fuses.....	.80

DISTRIBUTING BOARD WITH HEAT COILS AND CARBON LIGHTNING ARRESTER.



List No. 933.

This board is the same as the one above, but using heat coils in place of mica fuses. The board for 25 metallic lines measures about forty inches by ten inches wide.

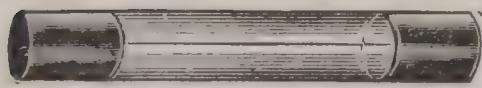
List No.

Price.

933	Per line—single line, without fuses.....	\$0.30
934	“ “ —metallic circuit, without fuses.....	.60

FUSES FOR CUT-OUTS.

TUBULAR GLASS FUSES.



List No. 978.

This Fuse is enclosed in glass and is more reliable than the regular mica fuse, as there is nothing around the fuse wire to increase its conductivity. Made in any amperage required for telephone lines.

List No.		Price.
978	Tubular Glass Fuse.....per 100,	\$3.00

Always state amperage when ordering.



List No. 980.

HEAT COILS.

For use with Sneak Current Protectors.

This Heat Coil is made to operate from $\frac{1}{16}$ amp. up to any required capacity.

List No.		Price.
980	Heat Coils.....per 100,	\$2.00

Always state amperage when ordering.

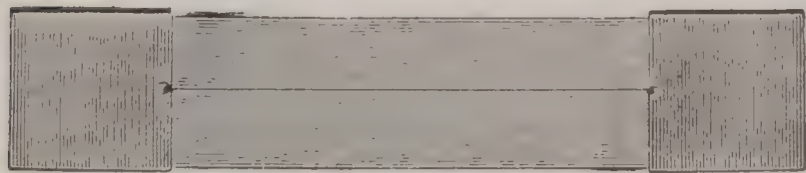
STANDARD MICA FUSES.

CUTS FULL SIZE.



List No. 988 and 966.

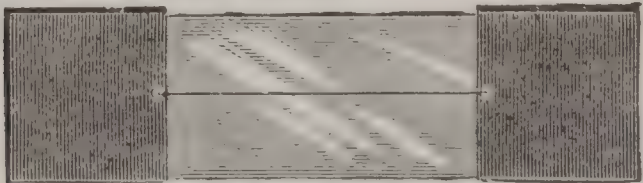
Western Union Style.



List No. 972 and 974.

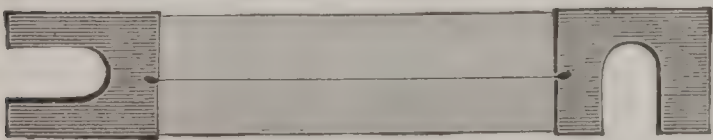
List No.		Price per 100.
988	Copper Terminal,	\$2.50
966	Tin Foil "	2.00
972	Copper "	2.50
974	Tin Foil "	2.00
919	Copper "	2.50
968	Tin Foil "	2.00

Packages contain 100 Fuses.



List No. 919 and 968.

Postal Style.

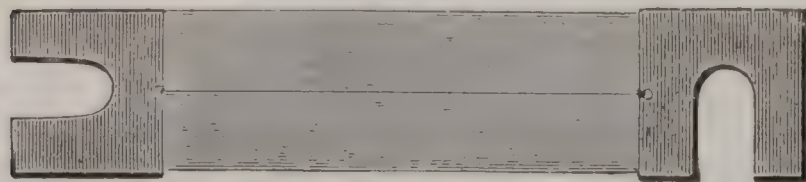


List No. 911 and 967.

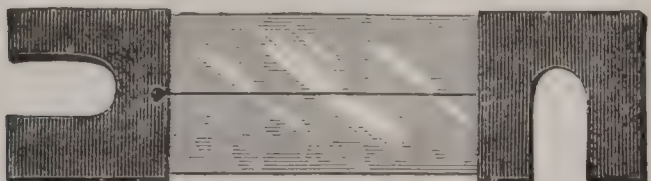
List No.		Price per 100.
911	Copper Terminal,	\$2.50
967	Tin Foil "	2.00
973	Copper "	2.50
975	Tin Foil "	2.00
921	Copper "	2.50
969	Tin Foil "	2.00

Packages contain 100 Fuses.

Always state amperage when ordering.



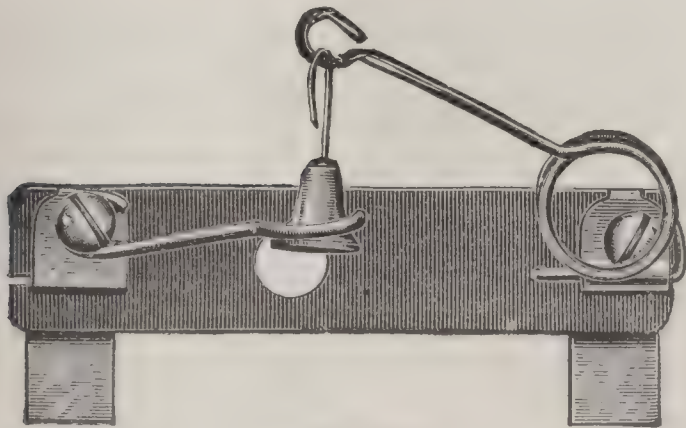
List No. 973 and 975.



List No. 921 and 969.

FUSIBLE CUT-OUT HEAT COIL HOLDERS.

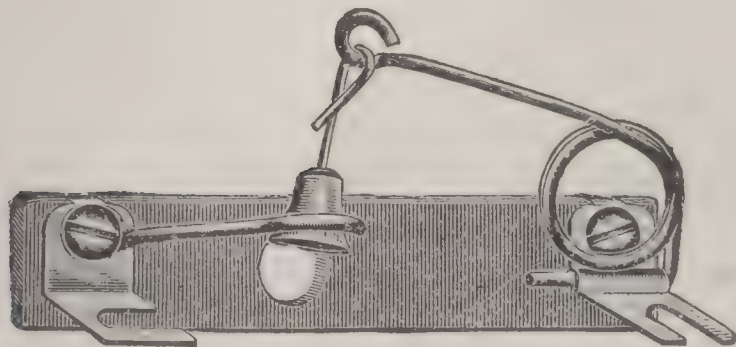
FOR USE WITH No. 980 HEAT COILS.



List No. 928.

WESTERN UNION STYLE.

List No.	Price.
928 With one Heat Coil.....	\$0 08



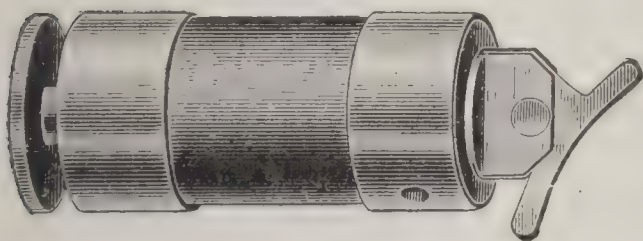
List No. 929.

POSTAL STYLE.

List No.	Price.
929 With one Heat Coil	\$0 08

With these holders No. 980 Heat Coils can be used in place of fuses on the regular Western Union and Postal type Fuse Blocks.

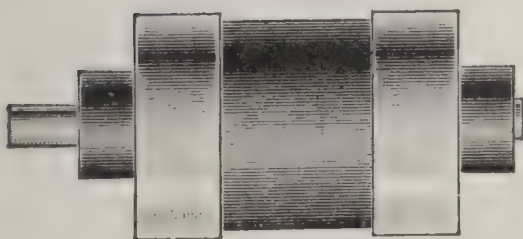
SELF-SOLDERING HEAT CARTRIDGES.



List No. 981.

ROLFE AMERICAN TYPE.

List No.	Price.
981 Heat Coils.....	\$0 30

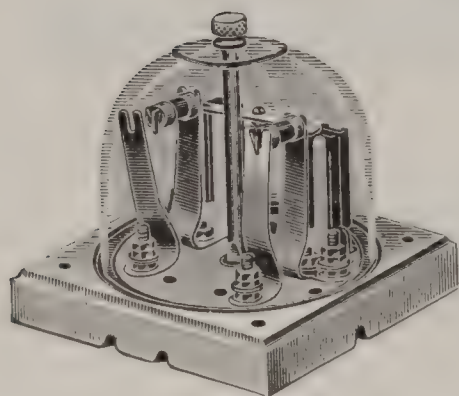


List No. 982.

KAISLING TYPE.

List No.	Price.
982 Heat Coils.....	\$0 30

LIGHTNING ARRESTERS.
FOR TELEPHONE CIRCUITS.

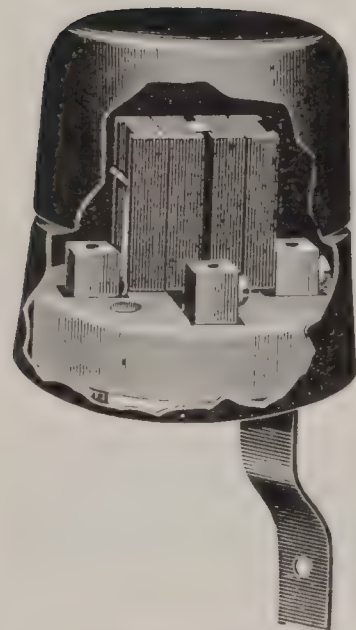


List No. 996.

ROLFE AMERICAN INDIVIDUAL ARRESTER,
FOR SUBSCRIBER'S INSTRUMENT.

This apparatus is equipped with self-soldering Heat Cartridges and automatically self-cleaning lightning arresters. Mounted on a porcelain base with glass cover. Dust and moisture proof.

List No.	Price.
996 Arrester, complete	\$1 50



List No. 997.

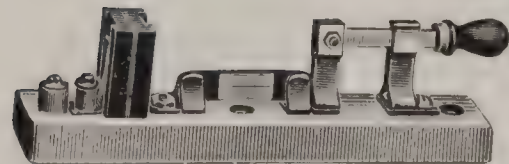
WEATHERPROOF ARRESTER.

To be used on pole or outside of house. Porcelain base. Galvanized iron cover. Large carbon surface.

List No.	Price.
997 Arrester, complete	\$1 00

COMBINED FUSE BLOCKS AND
SWITCH CUT-OUTS.

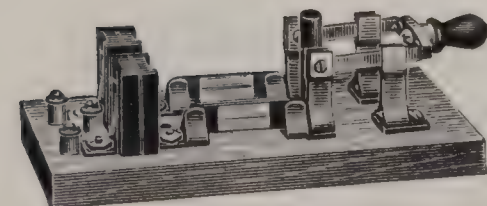
Single Pole with Porcelain Base.



List No. 998.

List No.	Price.
998 Western Union style, with carbon	\$0 80
999 Postal style, with carbon	80

Double Pole with Porcelain Base.

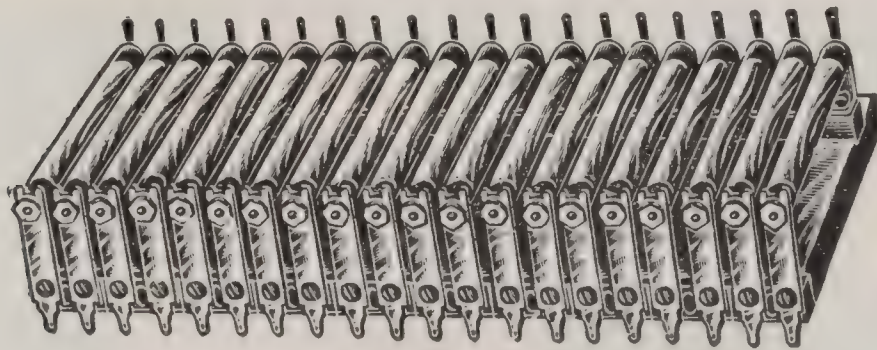


List No. 1000.

List No.	Price.
1000 Western Union style, with carbon.....	\$1 50
1001 Postal style, with carbon	1 50
1002 Western Union style, without carbon.....	1 20
1003 Postal style, without carbon.....	1 20

TELEPHONE TUBULAR LINE FUSES.

IN BANK, PLAIN.



For cable and office protection.

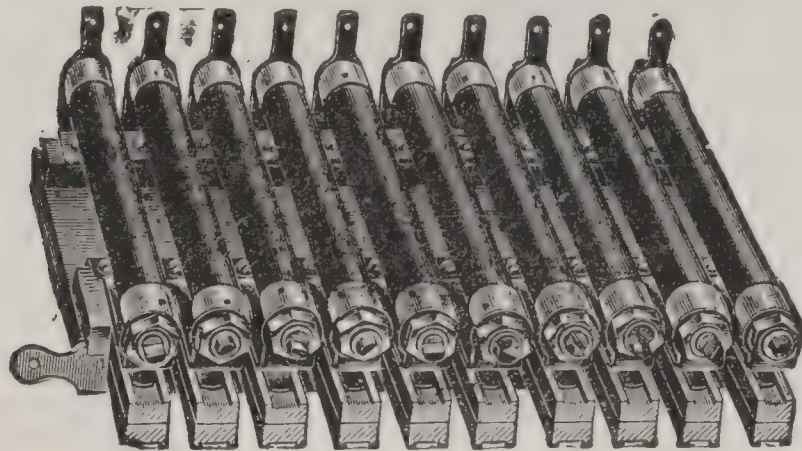
List No.

1005 Plain, per Metallic Line

Price.

\$0 40

IN BANK WITH CARBON LIGHTNING ARRESTER.



List No.

1006 With Carbon Lightning Arrester, per Metallic Line

Price.

\$0 60

In ordering specify number of lines wanted.



List No. 1007.

WITH CLAMP FOR LINE WIRE.

List No.

1007 Fuse

Price.

\$0 15



List No. 1008.

WITH FLUTED WASHER FOR LINE WIRE.

1008 Fuse

0 15



List No. 1009.

FOR BANKS.

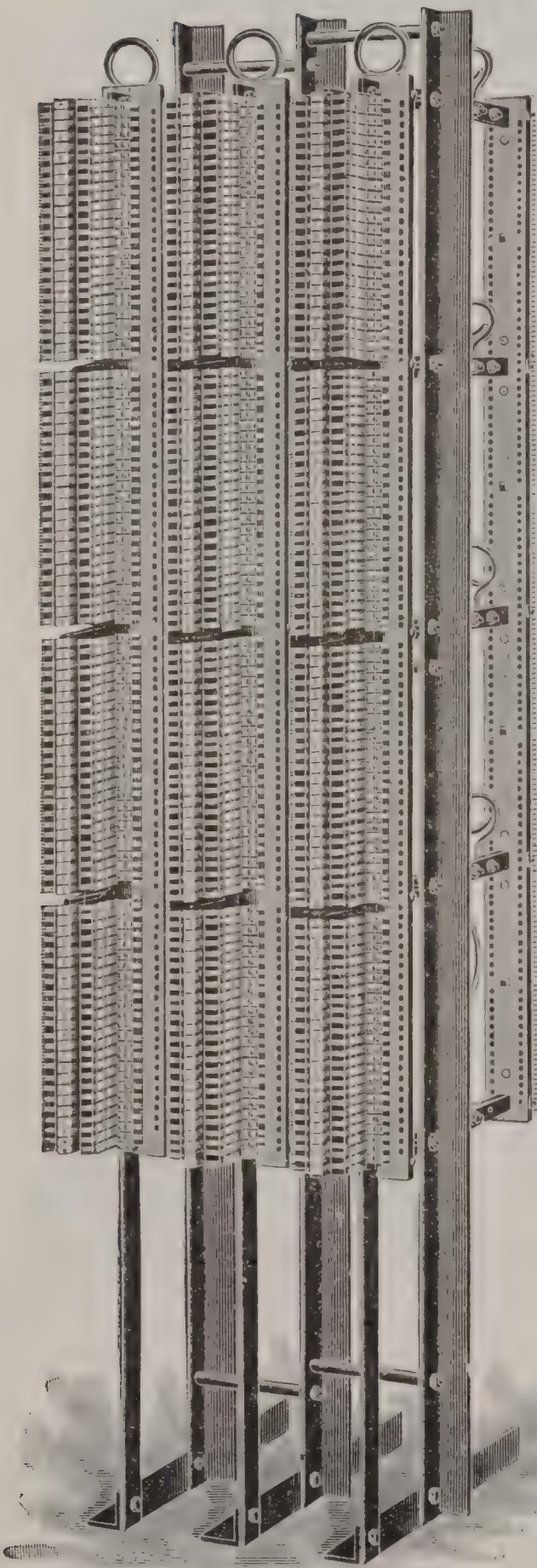
1009 Fuse

0 15

These Fuses are made of Seasoned Wood tubes, with Mountings of Heavy Brass and are Refusable. Will fit any size wire.

SWITCH BOARD PROTECTORS AND MAIN DISTRIBUTING FRAMES.

SELF-SOLDERING AMERICAN TYPE.



American Switchboard Protectors and Main Distributing Frames comprise a system of individual units.

Each line is mounted separately and the lines are grouped in banks of twenty or twenty-five pairs, each bank forming a separate unit.

The several banks are in turn separately mounted on 100 or 200 pair distributing or cross connection frames.

These frames are capable of being connected up with other frames by bolts and nuts, to form any desired capacity of equipment.

Every line being separate and distinct from every other line, possible cross talk and short circuits are eliminated.

An injury or defect in any line has no effect on other lines in the same bank.

Each line is easily accessible.

These frames can be furnished to use either the Rolfe American, or the Kaisling self-soldering heat coils.

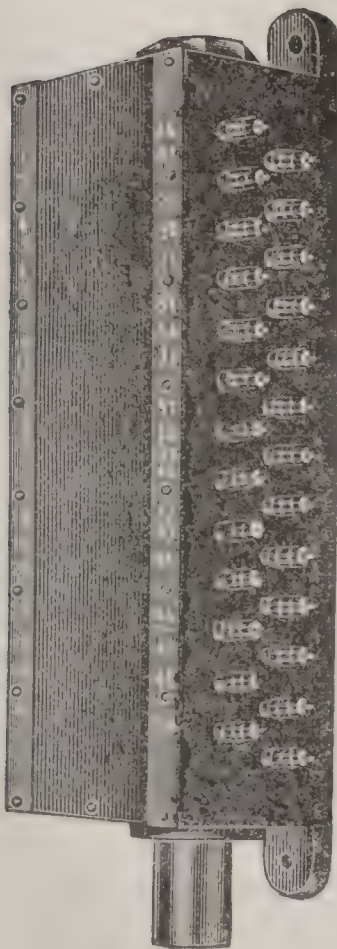
List No.	Price per pair.
1025	Protector Bank only, without Heat Cartridges.....\$0 90
981	Heat Cartridges only..... 60
1026	Front Guide Wire Strips 08
1027	Back Guide Wire Strips..... 08
1028	Distributing Terminals only 20
1029	Iron Distributing Frame only..... 14
1030	Frames complete with Heat Cartridges 2 00

CABLE HEADS.

LOCK NUT CABLE HEADS.

Made of cast steel and has heavy coat of enamel baked on.
Each pair is numbered.

List No.		Price.
1032	25 pair	\$15 00
1033	50 "	30 00
1034	100 "	60 00

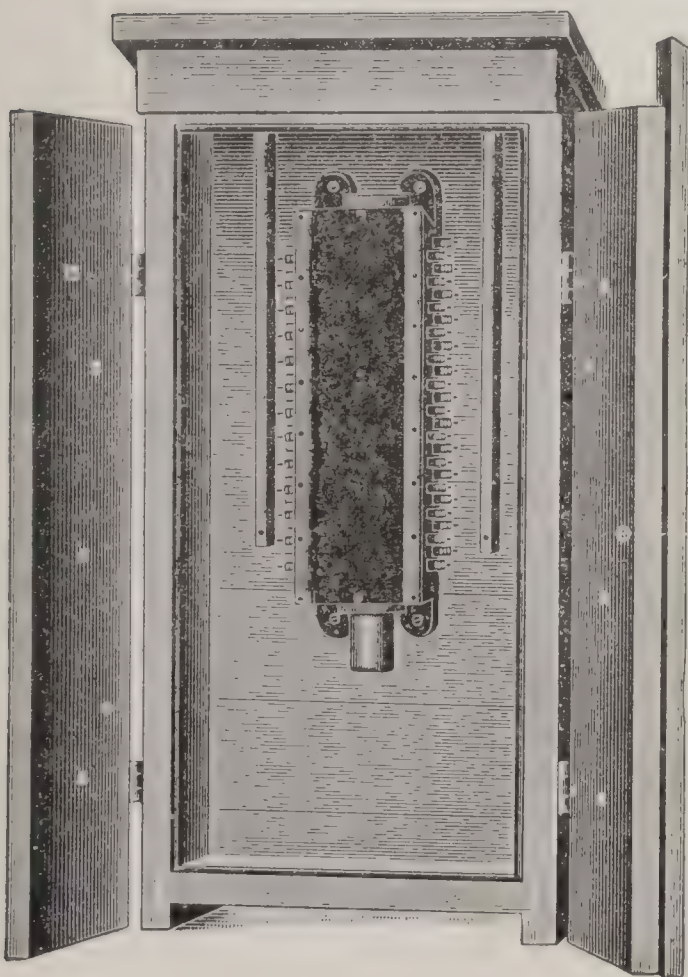


FUSED CABLE HEADS.

Same as above but has carbon Lightning Arrester and Mica Fuses.

List No.		Price
1035	25 pair	\$ 25 00
1036	50 "	50 00
1037	100 "	100 00

POLE TERMINAL BOX.

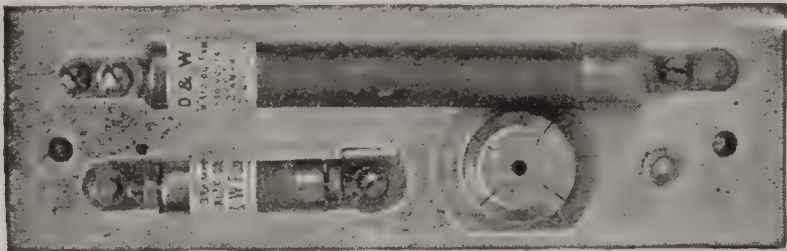


OR POLE HOUSE.

This box is well made, strong and thoroughly waterproof, and is used by many of the largest telephone exchanges in the United States. Illustration shows box with cable head installed ready for wiring.

Prices quoted upon receipt of inside dimensions.

D. & W. Telephone and Fire Alarm Protectors.



List No. 10715.

Furnished Complete with Fuse and Sneak Coil.

List No.	Mfrs. No.	Description	Std. Pkg.	Price each.
10714	3100	Single Pole Cut-out.....	50	\$0 75
10715	3102	Combination Cut-out.....	50	1 60
10716	3104	Double Pole " ".....	50	2 50

D. & W. Fuses for Telephone and Fire Alarm Circuits.

Will Only Fit Telephone Protectors.

TYPE "A" OR SCREW CLAMP CONTACT.

List No.	Mfrs. No.	Continuous Load Cur.	Dist. on Centres	Price Each.
10717	3001	1 amp.	5 5/32 in.	\$0 27
10718	3002	2 "	5 5/32 "	27
10719	3003	3 "	5 5/32 "	27
10720	3004	4 "	5 5/32 "	27

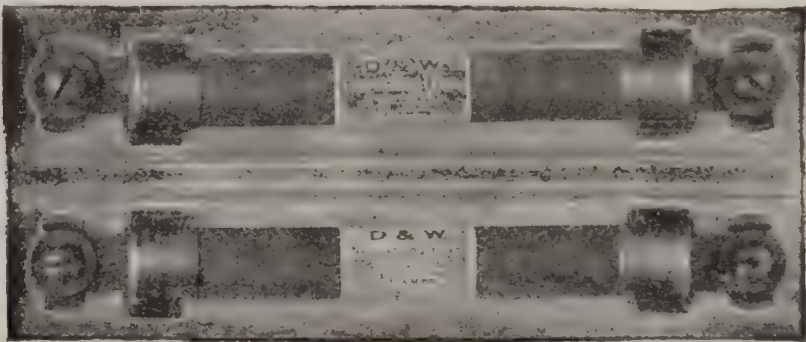
Sneak Coils for Combination Cut-out.

List No.	Mfrs. No.	Continuous Load Cur.	Length Over all	Price Each.
10721	3110	1/10 amp.	1 7/8 in.	\$0 29
10722	3210	1/10 "	1 7/8 "	29
10723	3310	1/10 "	1 7/8 "	29
10724	3410	1/10 "	1 7/8 "	29
10725	3510	1/10 "	1 7/8 "	29

Standard Package Quantity, 25.

For telephone service we recommend a 1/10 amp. sneak coil, and for fire alarm service a 5/10 amp. sneak coil.

Telegraph Protectors.



List No. 10726.

For Cartridge Fuses.

List No.	Mfrs. No.	Description	Lg. Fuse Over all	Dist. on Centres	Price Each.
10726	800	Western Union Cut-out No. 3, Double Pole Type "C" Contact	3 1/8 in.		\$0 60
10727	801	Postal Telegraph " " 1, Single " " "A" "		5 5/32 in.	75
10728	802	" " " " 1, Double " " "A" "		5 5/32 "	1 00
10729	803	" " " " 2, Single " " "C" "	4 5/8 "		75
10730	804	" " " " 2, Double " " "C" "	4 5/8 "		1 00

Cartridge Fuses.

For Telegraph Protectors.

List No.	Continuous Load Cur.	Description	Length Over all	Dist. on Centres	Price Each.
10731	1/10 to 3 amp.	Western Union, Type "C".....	3 1/8 in.		\$0 22
10732	1/10 to 10 "	Postal Telegraph " "A".....		5 5/32 in.	27
10733	1/10 to 10 "	" " "C".....	4 5/8 "		27

Cartridge Sneak Fuses.

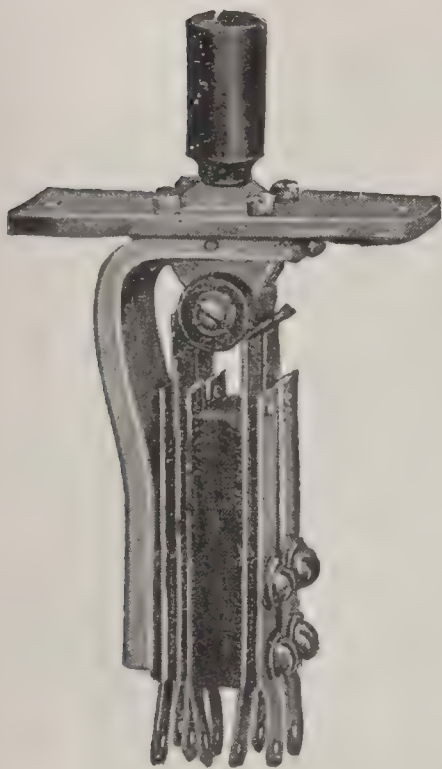
For Telegraph Protectors.

10734	1/10 to 5/10 amp.	Western Union, Type "C".....	3 1/8 in.		\$0 24
10735	1/10 to 5/10 "	Postal Telegraph, " "A".....		5 5/32 in.	30
10736	1/10 to 5/10 "	" " "C".....	4 5/8 "		30

Standard Package Quantity 25.

Sneak fuses while being accurate are less sensitive to sudden rushes of current than the regular fuse and are less liable to be burned out by small lightning discharges; consequently they are admirably adapted for use on telegraph circuits.

TELEPHONE SWITCH BOARD ACCESSORIES.



COMBINED RINGING KEY AND LISTENING CAMS.

We illustrate herewith our new type Combination Listening Key and Ringing Cam. Moving lever forward it operates, ringing circuit and it is arranged to automatically return to its normal position upon removal of operator's finger from lever. Moving lever backward, cuts in on cord circuit and operates as Listening Cam.

This article is extremely durable and reliable.

List No.

1040 Complete

Price.

\$2 50

SELF-RESTORING SWITCH BOARD DROP AND JACK.

Bell Type.

This illustration shows the type of Self-Restoring Drop and Jack, used on our Self-Restoring Switch Boards. The Drop is mechanically restored by the Plug, as it enters the Jack, to make connection with the subscriber. There are only two springs in the combined Drop and Jack.

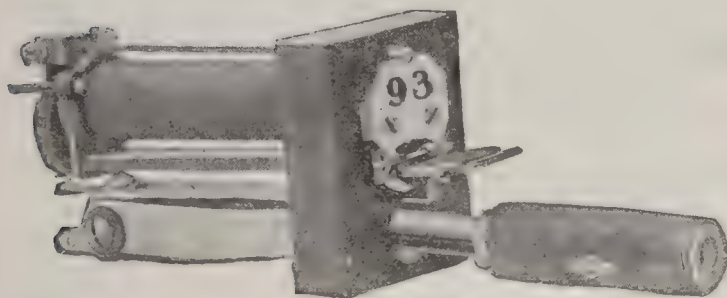
Every detail in the construction of this Drop, Jack and Plug has been carefully considered, with a view of securing the highest efficiency, combined with simplicity of construction. Magnets are wound with silk covered magnet wire.

List No.

Price.

817 Self-Restoring Drop and Jack without Plug, wound for Series work.....

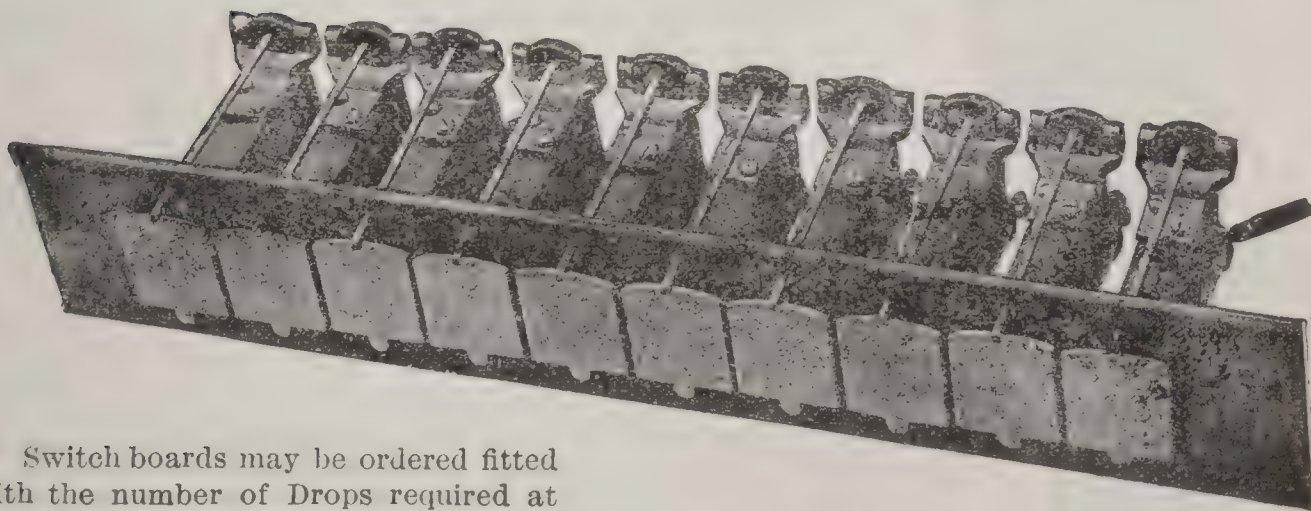
\$4 50



View before call is answered.

List No. 817.

STANDARD SWITCH BOARD DROP.



Switch boards may be ordered fitted with the number of Drops required at time of installation, but with space left for additional strips of Drops which future business may render necessary. Magnets wound with silk covered magnet wire. They require no adjustment or attention. Drops will be furnished mounted on individual plates, or separate, if desired.

List No.

818 Standard Switch Board Drops for Series Work.....

Price.

\$1 50

Drops will be wound to any resistance specified. Prices upon application.

STANDARD EXCHANGE SWITCHBOARD.

BELL TYPE DROP.

This illustrates a 100-Drop Standard Board for Exchange use.



A few of its many points of superiority :—

- Rapid in operation.
- Ease of access to mechanism.
- Small and compact.
- One operator can handle more lines.
- All magnets wound with silk covered wire.
- Has self-contained drops. Any one can be removed without disturbing the operation of the others.
- All drops have constant ring night-bell attachment.

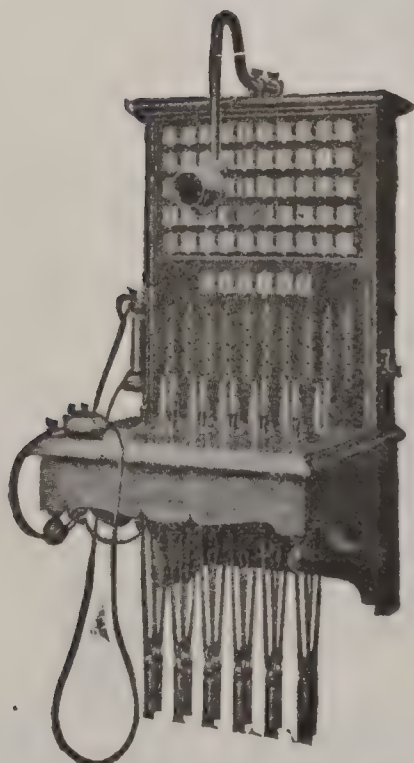
Operators attachment extra ; will furnish either Gooseneck or Suspended Type as preferred.

This board is made with either regular or self-restoring type drops, as per list below.

List No.	Price.
785 Standard Switchboard, Self-Restoring, Ground Circuit, per Drop.....	\$5 50
786 Standard Switchboard, Self-Restoring, Metallic Circuit, per Drop.....	6 00
787 Standard Switchboard, Non-Restoring, Ground Circuit, per Drop.....	4 50
788 Standard Switchboard, Non Restoring, Metallic Circuit, per Drop.....	5 00
789 Operators Attachment, including Generator, Gooseneck or Suspended Type Transmitter, with Hand Receiver.....	16 00
790 Operators Attachment, including Generator, Gooseneck or Suspen'd Type Transmitter, with Hand and Head Rec'ver..	22 00

PRIVATE BRANCH EXCHANGE TYPE SWITCHBOARD.

This illustrates a 50-Drop Private Branch Board.



Details of construction are in general the same as those of Standard Exchange Type Boards illustrated on this page.

Private Branch Exchange Boards are furnished with Operators Plug and Clearing Out Drops

Operators Attachment consisting of Hand Generator, Switchboard Transmitter, Bi-Polar Receiver and Cord, with Automatic Switch complete, are furnished as extras at prices given below.

Three patterns of Switchboard Transmitter will be supplied as follows, but unless otherwise specified, Stationary Transmitter will be shipped.

GOOSENECK PATTERN, SUSPENDED PATTERN,
STATIONARY ADJUSTABLE PATTERN.

Cams and Ringing Keys furnished on this type Board when ordered, at an additional price. We mount all Switchboards of over 20 Drops on a Backboard with hinges, affording greater convenience in making connections and testing circuits.

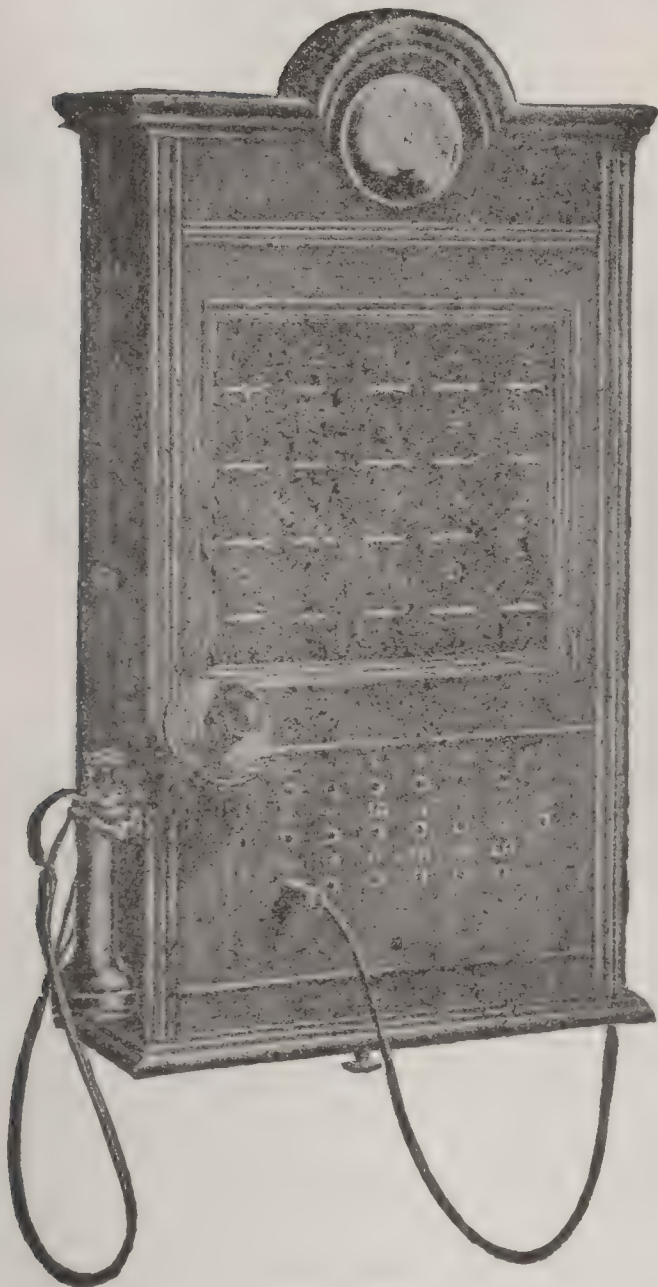
List No.	Price.
792 Private Branch Exchange Switchboard, Ground Circuit, per Drop.....	\$3 50
793 Private Branch Exchange Switchboard, Metallic Circuit, per Drop.....	4 00
794 Operators Attachment, including Generator, Transmitter and Hand Receiver, Stationary Adjustable Type.....	11 50
795 Operators Attachment, including Generator, Gooseneck or Suspended Type Transmitter, with Hand Receiver..	16 00
796 Operators Attachment, including Generator, Gooseneck or Suspended Type Transmitter, with Hand and Head Receiver.....	22 00

On any of the above Boards, Listening Cams and Ringing Keys will be furnished at an additional charge of 50c. per Drop.

Special Switchboards built to order for Toll Line Work, with Bells instead of Drops. Prices upon application.

TELEPHONE SWITCHBOARD.

Hotel Type Telephone Annunciator.



List No. 797

We can furnish this style Telephone Annunciator with any number of indications. Special designs made to architects plans and specifications. Gravity or Needle Type Drop can be fitted with Telephone Attachment. A number of different Wiring Circuits can be used. The usual method is *two direct Wires and one common return Wire*. Central Ringing and Central Talking Battery is required for Annunciator Systems of this character.

List No.	Description of Telephone Apparatus.	Price.
797	Hotel Telephone Annunciator, Needle Style, per number.....	\$3 50
798	Hotel Telephone Annunciator, Gravity Style, per number.....	3 20
799	Transmitter, Receiver and Automatic Switch, attached, extra.....	10 00

Spring Jack and Plug.

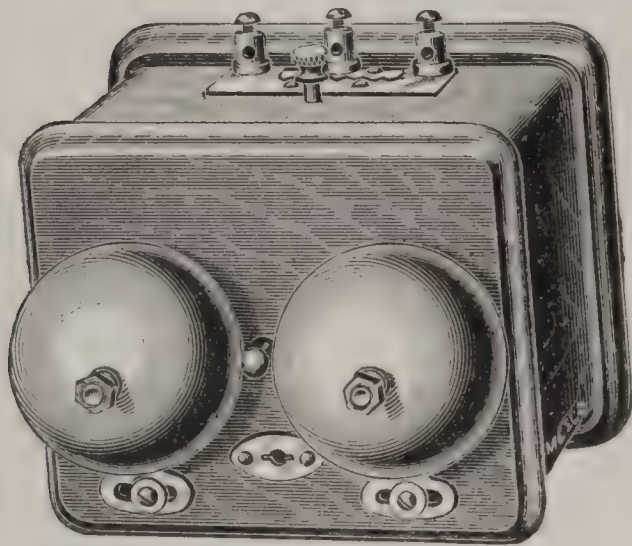


PLUG AND JACK.

Our Spring Jacks and Plugs are made for Ground or Metallic Circuit. All parts of these Plugs and Jacks are made to stand hard usage and are not liable to get out of adjustment.

List No.	Description of Telephone Apparatus.	Price.
804	Ground Circuit Plug with 3 ft. Cord.....	\$1 00
805	Metallic Circuit Plug with 3 ft. Cord.....	1 20
806	Ground Circuit Jack, each.....	80
807	Metallic Circuit Jack, each.....	1 00
808	Plug Receptacles.....	30
809	Plug Cord, Metallic Circuit, per yd.....	36
810	Plug Cord, Ground Circuit, per yd.....	28
811	Switchboard Weights, each	50

MAGNETO EXTENSION BELLS.

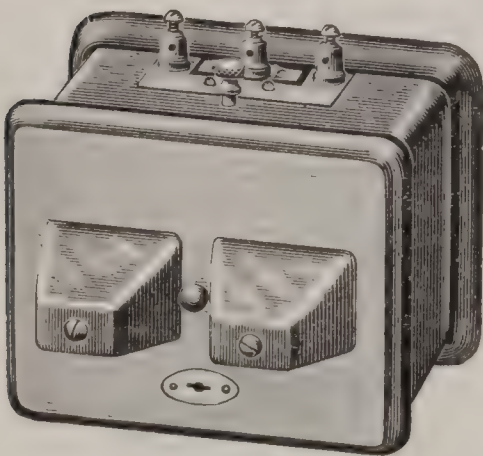


For use in circuit with Magneto Call Bells. These bells are intended for use where it is not necessary to answer back, but where a bell is needed in the same circuit, at a distance from the regular telephone or signal bell.

List No.				Price.
882	Wound	80 Ohms Resistance	-----	\$2 80
884	"	1000 "	-----	6 00
885	"	1600 "	-----	7 00

EXTENSION BELLS WITH SPECIAL CONCS.

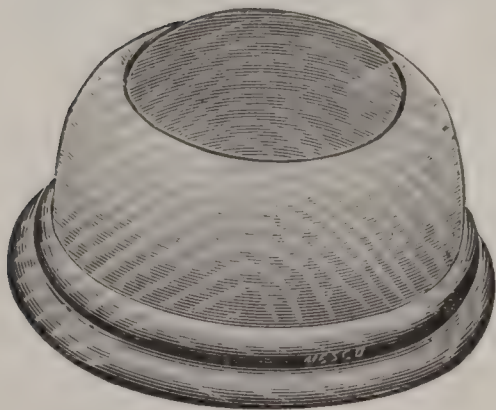
Of Unusually Fine Quality and Different Tones and Shapes.



Intended for use where more than one telephone or extension bell is used in the same room. The tones being different, the call on which circuit the signal is given can be determined without the use of an indicator.

List No.				Price.
886	Wound	80 Ohms Resistance	-----	\$3 40
888	"	1000 "	-----	6 60
889	"	1600 "	-----	7 00

MAGNETO EXTENSION BUZZER.



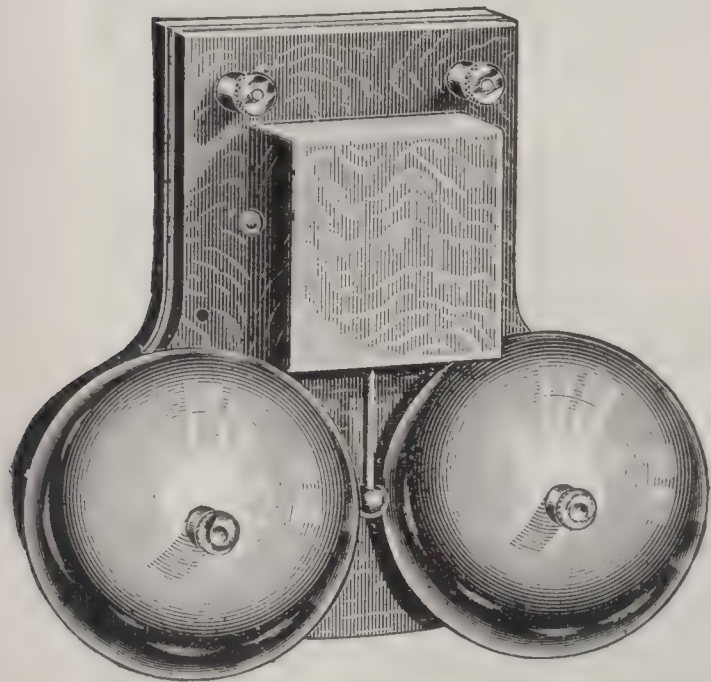
Cut one-half size.

It takes the place in quiet localities of the ordinary Magneto Extension Bell. Small in size, not annoying in sound. Suitable for direct mounting on desk or other fine cabinet work, or upon the wall. Requiring no battery, it may be used in place of the ordinary Electric Call Bells by using a magneto generator.

It gives the same sound as an ordinary Electric Battery Buzzer. Made up in oak.

List No.		Price.
912	Magneto Extension Buzzer, wound 80 Ohms for Series-----	\$2 00
914	Magneto Extension Buzzer, wound 1600 Ohms for Bridging-----	3 50

LOUD RINGING EXTENSION BELL.



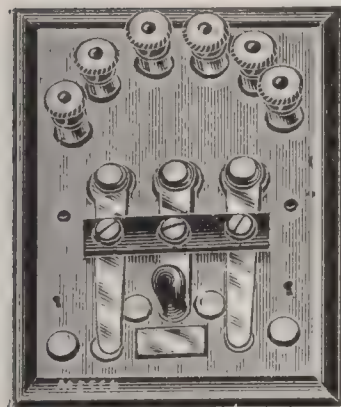
The Cut shows the construction of the Bell very clearly,

In such common battery circuits where it is necessary to use a condenser in the ringing circuit, these bells leave nothing to be desired.

Means for adjusting the bells are provided so they can be made to ring loud enough to suit any locality. The separation of the gongs is changed by merely loosening the clamping nuts and turning the gongs on their posts. All other neccessary adjustments are provided for in an equally satisfactory manner.

Six-inch Gongs furnished on all Bells.
Price with condenser upon application.

List No.	Resistance of Ringer,	80 Ohms, without Condensers	Price.
901	200	"	\$ 9 00
902	400	"	9 15
903	1000	"	9 25
904	1200	"	9 50
905	1600	"	9 60
906	1800	"	9 75
907	2500	"	9 90
908		"	10 25



List No. 748.

EXTENSION BELL SWITCH.

The Extension Bell Switch is used where two telephone lines terminate and where only one telephone and an extension bell are in use. It will switch the telephone to either line and always keep the extension bell on line to which telephone is not connected, or it will connect both lines in one if desired.

List No.	Price.
748 Extension Bell Switch	\$2 60

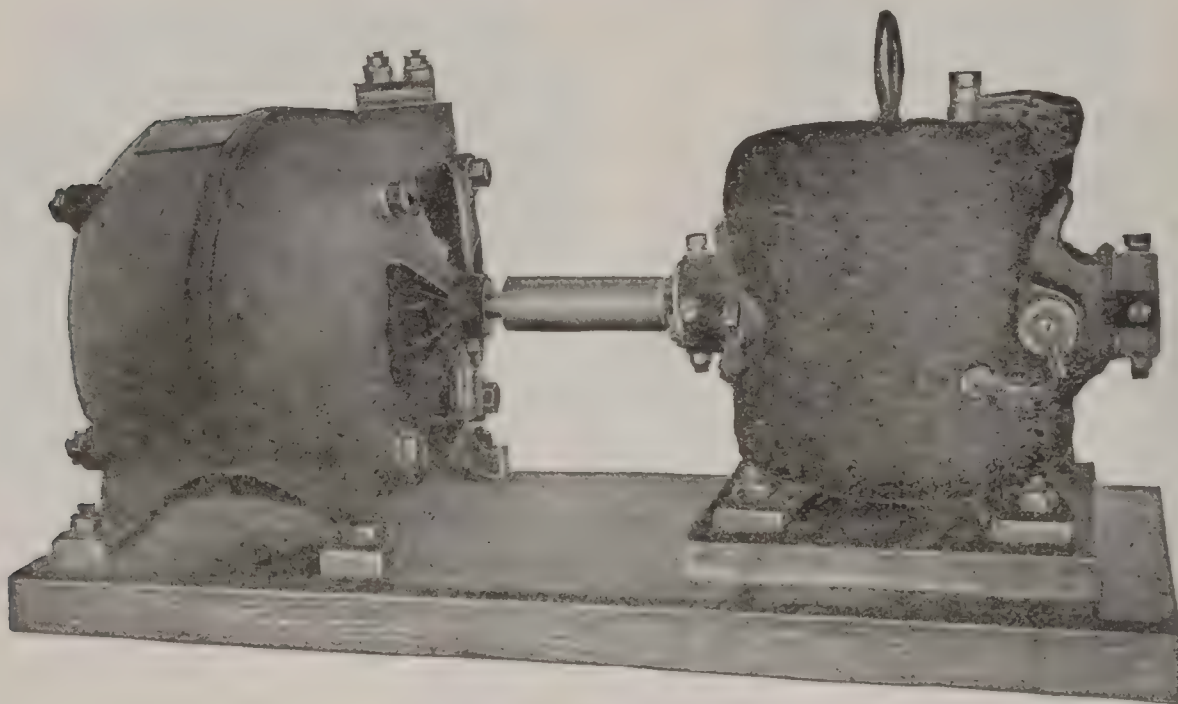


INTERCOMMUNICATING TELEPHONE SWITCH.

This Switch is made in oak only with nickel-plated lever and contacts.

List No.	Price.
751 4 Pt.	\$0 50
752 5 "	60
753 6 "	70
754 8 "	80
755 10 "	90
756 12 "	1 00

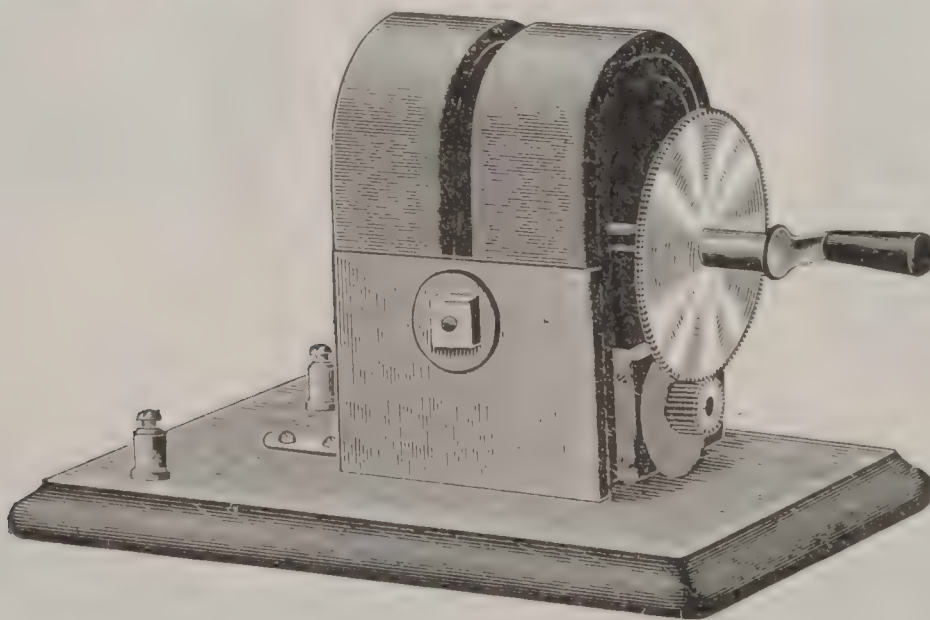
MOTOR GENERATORS AND ROTARY CONVERTERS.



Rotary Converters and Motor Generators are required for an almost unlimited variety of voltages winding and frequency, and it is not practicable to list these intelligently, therefore prices can be quoted only on application.

We are prepared to furnish almost anything in this line, required for Electro-Medical use, Caution work, Battery Charging, Telegraph and Telephone Signalling, Bell Ringing, Etc.

MAGNETO GENERATORS.

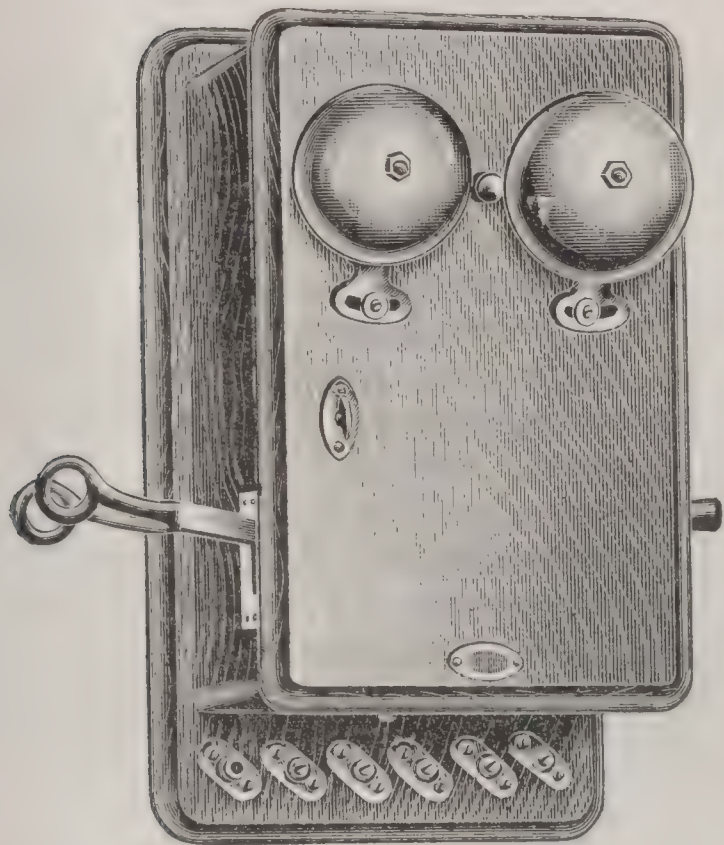


HAND POWER GENERATOR.

These Generators are same size as used in our regular Magneto Bells, with grooved pulley to take $\frac{1}{4}$ -inch round belt, or with crank if desired. They are especially adapted for use in factories for testing out circuits, etc. The Generator is wound to a high resistance, and can be used for telephone exchange or other signal purposes. Will last for years.

List No.		Price.
819	Small Power Generator with Pulley.....	\$5 60
820	Hand " "	5 40

MAGNETO SIGNAL BELLS.



The Magneto Bell is a very important part of any telephone equipment, whether on private lines, exchange systems or multiple bridging circuits, as a defectively constructed magneto is a source of constant annoyance and often makes inoperative every telephone connected with it in a circuit. This is not only very annoying, but a source of considerable expense to keep the bell in working order, as most telephone users have no conception of the working parts and circuits in a bell, and usually find it necessary to call in an expert when something goes wrong. This bell is constructed in the most scientific manner. Every part is assembled and made of the best material and carefully tested and approved by experts before going to the assembling bench and every completed bell is put through the most severe tests

before being approved for shipment. We have had many years experience in the manufacture of Magneto Bells and we utilize our knowledge to avoid the defects so often found in cheaply constructed bells.

Made with and without Long Lever Switch.

SERIES WITHOUT SWITCH.

List No.		Price.
830	80 Ohm Ringer, 15000 Ohm Generator.....	\$ 8 00

WITH SWITCH.

831	80 Ohm Ringer, 15000 Ohm Generator.....	9 00
-----	---	------

BRIDGING WITHOUT SWITCH.

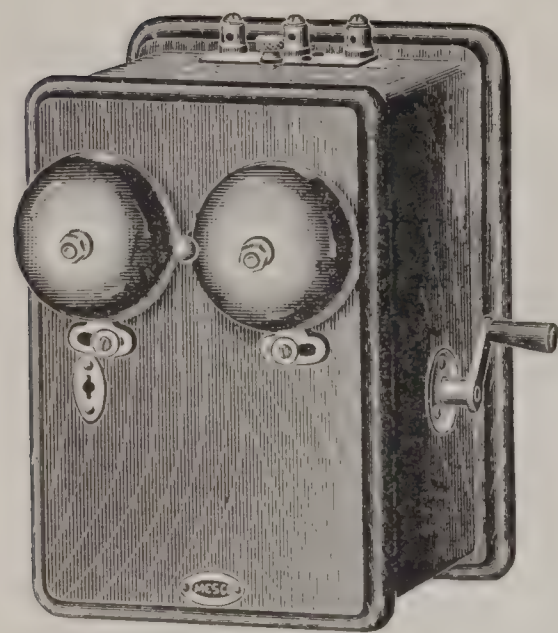
835	1000 Ohm Ringer, 20000 Ohm Generator.....	10 00
836	1600 " " " " " "	11 00
838	1000 " " with 5-bar 50000 Ohm Generator	12 50
839	1600 " " " " " " " "	13 00
840	1600 " " " 6-bar 100000 " "	15 00

WITH SWITCH.

832	1000 Ohm Ringer, 20000 Ohm Generator.....	11 00
833	1600 " " " " " "	12 00
841	1000 " " with 5-bar 50000 Ohm Generator	13 00
842	1600 " " " " " " " "	13 50
843	1600 " " " 6-bar 100000 " "	15 50

Oak only.

MAGNETO SIGNAL BELLS.



These Magneto Bells are all carefully tested both as to the correctness of the circuits and the resistance to which they will ring through. Some manufacturers, in order to give their generators an apparant strength which they do not really possess, wind their striker coils to a high resistance, which method of proceeding inter-feres with the proper operation of the telephone appa-ratus when in service. Unless otherwise stated, 80 Ohm strikers or their equivalent are used by us in all series bells.

The patented positive rubbing contact on the hinges makes it impossible to have a poor electrical connection at the hinge, whether the door is open or closed. Every part of the bell is well made and nicely finished. The gearing makes as little noise as any bell on the market.

We make this bell in one size only. The armature is centrally pivoted, and magnets easily adjusted.

Prices are for Oak Cases—other Woods to order.

List No.		Price.
825	To Ring Through 10000 Ohms Series without Automatic Hook	\$8 00
826	“ “ “ “ “ with “ “	8 50



MAGNETO TESTING BELLS.

The same care and special workmanship is used on Testing Bells that we employ on regular and bridging magnetoos.

Each bell is specially tested and must ring through more than the resistance specified before it is approved. Bells are inside the case; also a receptacle is fitted inside for holding the generator crank. The binding posts will hold any size wire up to and including No. 4.

Finely polished Oak cases with carrying strap.
Weight about 10 pounds.

List No.		Price.
875	Testing Bell, to Ring through 10000 Ohms.....	\$ 8 00
876	“ “ “ “ 15000 “	8 50
878	“ “ “ “ 25000 “	9 50
879	“ “ “ “ 35000 “	10 50
880	“ “ “ “ 50000 “	12 00
881	“ “ “ “ 75000 “	13 00
864	“ “ “ “ 100000 “	15 00

TELEPHONE TESTING SET.

Lineman's Testing Set with Long Distance Transmitter.



List No. 1541

Compact, durable and reliable.

This is the lightest Testing Set made using a Battery Transmitter.

Full size, 8 inches long, $5\frac{1}{4}$ inches high, 6 inches wide.

It is a complete telephone. The box contains Magneto, Buzzer, Generator, and two cells of Dry Battery. On the cover is mounted a Long Distance Transmitter, which is stationary. The Transmitter is $2\frac{1}{4}$ inches in diameter, and projects $1\frac{1}{4}$ inches from front surface of case. It is provided with flat mouth-piece, and has no projections which may be in the way or liable to breakage. The Receiver is held in a clamp and furnished with 18 inches of cord. The Battery is cut in and the line cut out *automatically*, not manually (as in other types on the market), by removing and replacing the Receiver. This instrument will work any distance and is suitable for testing Electric Light, Telegraph, Telephone Lines, Cables, and Wiring in buildings. Can also be used as a Field Telephone. A handy and complete Portable Instrument. This style is now being used by trolley companies on their cars for quick communication.

List No.	Price.
1541 One Testing Set, with 25,000 Ohm Series Generator and Battery, complete.....	\$15.50
1542 One Testing Set, with 50,000 Ohm Bridging Generator and Battery, complete.....	19.50

TELEPHONE SWITCHES.



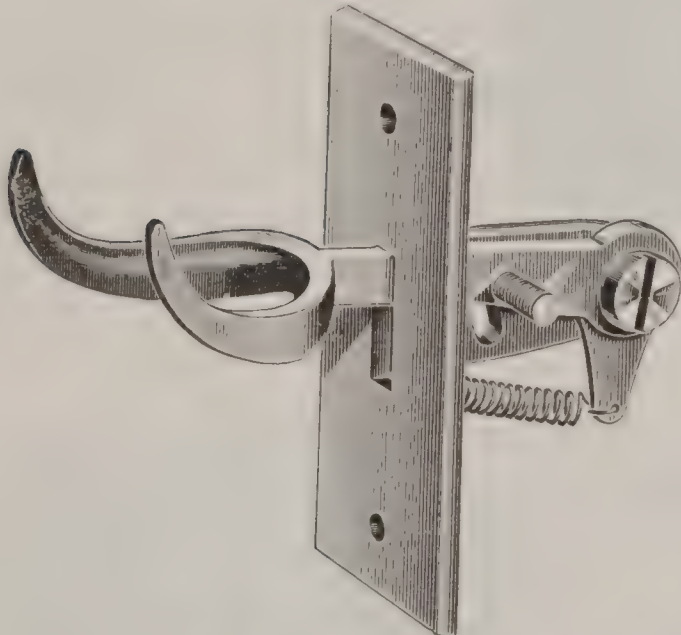
SINGLE HOOK TELEPHONE SWITCH.

This type of hook is used with watch case receivers, is well made, heavily nickel-plated and has good rubbing contacts. A fibre plate with Contact Springs is furnished with each switch.

List No.

Price.

781 Single Prong Telephone Switch..... \$0 50



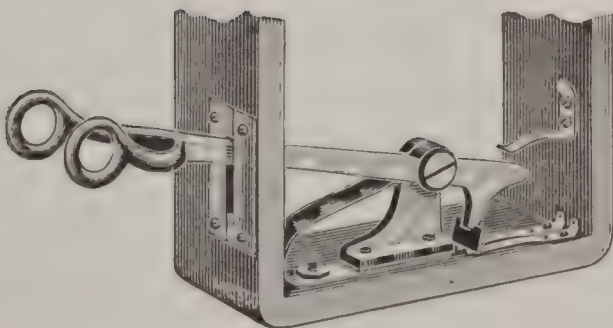
DOUBLE HOOK TELEPHONE SWITCH.

Easily attached to Magneto bell or transmitter box. We furnish with above hook a fibre plate with springs for attaching to inside of bell box.

List No.

Price.

783 Automatic Telephone Switch,
nickel-plated..... \$0 60



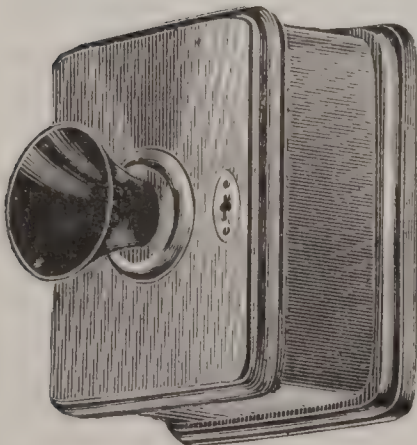
LONG LEVER TELEPHONE SWITCH.

This is one of the most reliable telephone hooks made; never gets loose or shaky; has knife-edge contacts, and is a general favorite. As a large percentage of telephone troubles is due to defective or poorly constructed switches, it is important to see that your instruments are all right in this respect.

List No.

Price.

784 Switch complete, nickel-plated..... \$1 00



TRANSMITTER CASE ONLY.

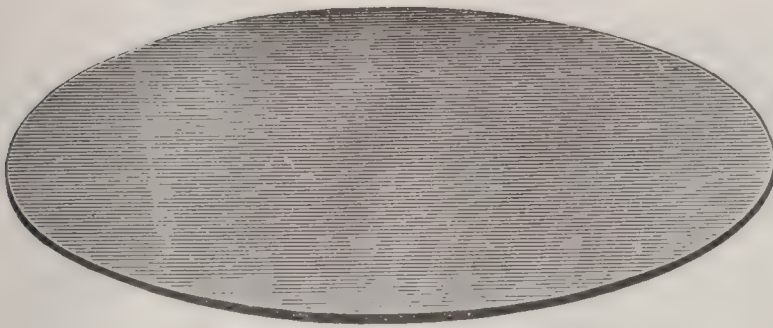
Complete with mouth-piece and nickel-plated rosette. This box is made to fit our No. 1460 Transmitter, but can be used with other makes as well.

List No.

Price.

1443 Empty Case..... \$1 25

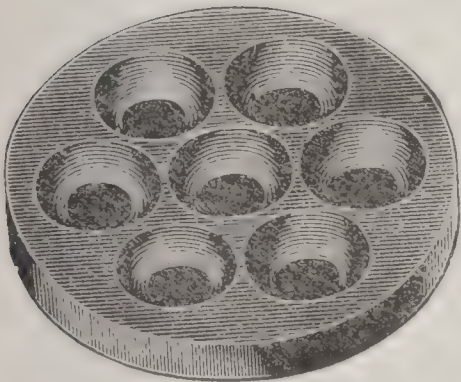
CARBON FOR TRANSMITTERS.



CARBON DIAPHRAGMS.

$\frac{1}{64}$ inch thick.

List No.	Price.
1425 Each	\$0 10



CARBON BACK, FOR CARBON BALLS.

List No.	Price.
1427 Each	\$0 25



CARBON BACK, FOR GRAIN CARBON.

List No.	Price.
1426 Each	\$0 25



CARBON BALLS.

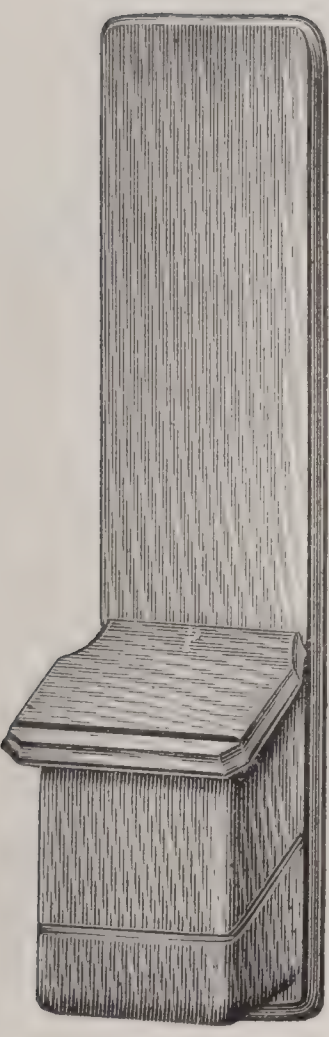
$\frac{1}{4}$ inch diameter.

List No.	Price.
1428 Per 100	\$2 50

GRANULATED CARBON.

Polished and especially prepared for use in transmitters.

List No.	Price.
1429 Per pound, domestic	\$ 2 00
1430 " " imported	12 00



BACK-BOARD WITH BATTERY BOX.

Same size as the standard back-board in general use.

List No.	Price.
1439 With single Battery Box	\$2 40
1440 " double " "	2 50
1441 " triple " "	3 00

LOCKS FOR TRANSMITTER CASES.

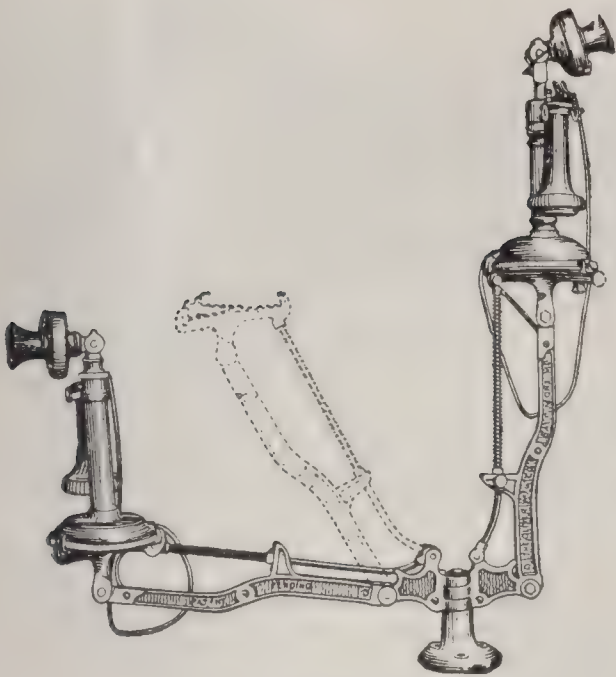
Our locks are the simplest and best on the market.

List No.	Price.
1444 Each	\$0 10
Per doz	75
Per 100	5 00

Special prices for quantities.

TELEPHONE BRACKETS.

EQUIPOISE TELEPHONE BRACKET.



The Equipoise keeps the telephone out of the way when not in use and instantly brings it into position when you want it.

Swings around to any desired position, adjusts itself to any height and can be used either while you are sitting or standing.

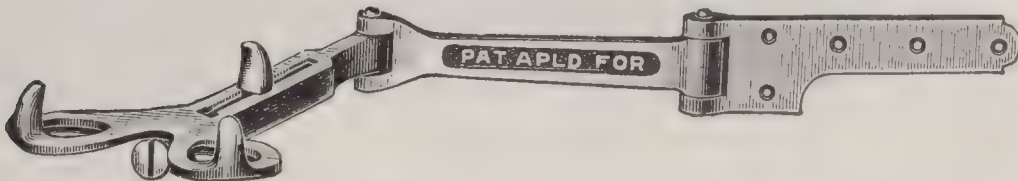
The Equipoise can be attached to any kind of a desk or table, to a wall, post, window-casing, upper or lower side of a shelf—anywhere you want to put it. Our universal attaching device is easily fastened in any one of five different positions.

Used just as readily where there are two telephones as where there is only one.

Finished in oxidized copper.

List No.	Price.
1042 18 inch Bracket.....	\$ 6 00
1043 23½ " "	7 00
1044 18 in. Double Bracket for 2 Telephones	12 00

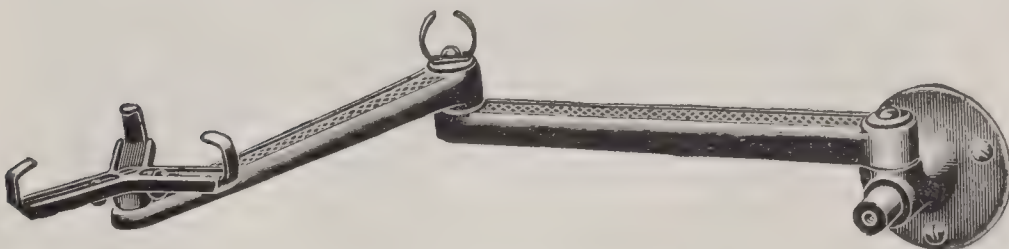
THE HANDY TELEPHONE BRACKET.



This Bracket is easily adjusted to fit any telephone base, and has double hinge, allowing it to fold out of the way at the side of the desk. Nicely finished in oxidized copper.

List No.	Price.
1045 Handy Bracket	\$3 00

THE IDEAL TELEPHONE BRACKET.



The Ideal Telephone Bracket fits any size base and can be attached to either flat or roll top desks, wall or partition. This bracket will not sag. The cord is carried in clip on top of bracket entirely out of the way. Nickel-plated.

List No.	Price.
1046 Bracket complete.....	\$3 00

TELEPHONE RECEIVERS.

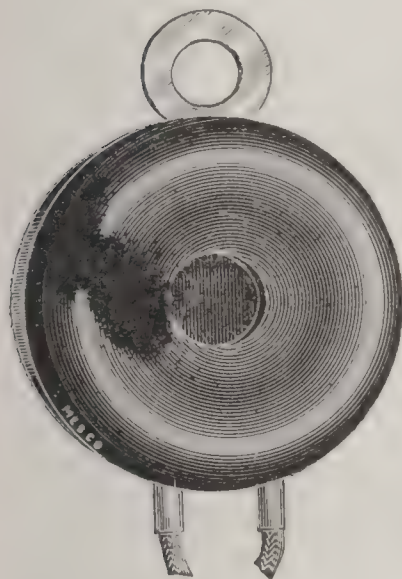
Pony Receiver.—Single Pole.



List No. 1448

Size $2\frac{1}{4}$ inches diameter, weight only 6 ounces. The spool is wound with silk wire to the standard resistance of 75 ohms. Binding posts will not get loose. Shell of the receiver is of cast steel and is strongly magnetized. The adjustment is rigid and will not become changed even by the greatest carelessness.

List No.	Price.
1448 Pony Receiver.....	each, \$1.00



List No. 1449

“Solid” Double Pole Watch Case Receiver.

This Receiver has all metal parts moulded in the case; no chance to become loosened or out of adjustment. The inside binding posts make it more convenient to hold in the hand.

Wound to 75 ohms resistance.

List No.	Price.
1449 Watch Case Receiver.....	\$1.50

Watch Case Receivers with Head-Band.



List No. 1447

The nickel-plated head-band is light and strong; it is easily adjusted, and will not tire the head. Can be used with one or two receivers.

List No.	Price.
1446 With one No. 1448 Receiver complete.....	each, \$1.60
1447 With two No. 1448 Receivers complete.....	each, 2.40
1465 With one No. 1449 Receiver complete.....	each, 2.00
1466 With two No. 1449 Receivers complete.....	each, 3.50

Prices are without Telephone Conducting Cords.

TELEPHONE RECEIVERS.



List No. 1402.

HAND MICROPHONE.

This handy little article can be installed on bell wiring without interfering with bells

List No.	Price.
1401 Microphone, complete with	
Push Button, Bell or Buzzer	\$10 00
1402 Microphone only	8 00

Full directions with each instrument.



List No. 1403.

ALUMINUM DOUBLE POLE WATCH CASE RECEIVER

New type Double Pole Watch Case Receiver. Very strong rubber cap. Aluminum case which makes it very light. With anchor button and cords. No strain comes on cord connections.

List No.	Price.
1403 Receiver	\$2 00



List No. 1404.

FAIRY HEAD RECEIVER.

New style Head Receiver. Leather covered spring. Receiver held by spring clamp. Self-adjusting to the head. Double pole pattern aluminum case, very light with six feet of silk cord attached.

List No.	Price.
1404 Head Receiver and Cord	\$5 00

LONG DISTANCE TRANSMITTERS.

They articulate distinctly and plainly.
No up and down variations or sizzling.

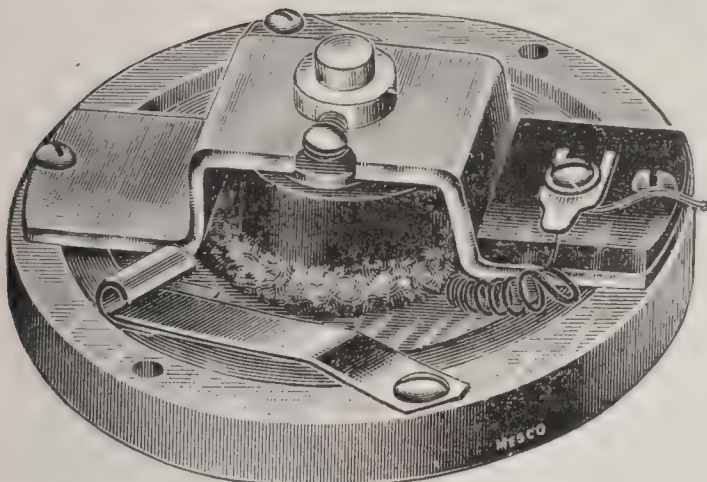


List No. 1458

Plain Back

This is our standard transmitter, furnished on all outfits having the adjustable arm; can be used to replace other types on any style of arm or attached to the wood work of telephone.

List No.	Price.
1458	Transmitter.....each, \$2.50

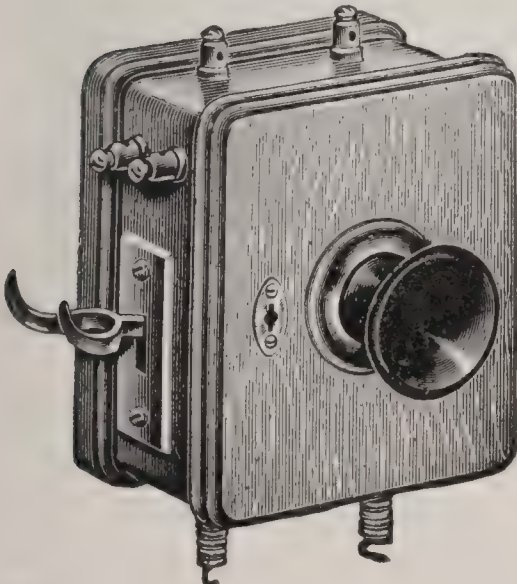


List No. 1460

(Illustration shows back of transmitter.)

This transmitter is arranged to be attached to the inside of bell box or used in a transmitter case as illustrated below. The substantial selected materials and scientific workmanship used on our transmitters are what makes them talk so satisfactorily.

List No.	Price.
1460	Transmitter as shown by cut.....\$2.00
1461	Transmitter with mouth-piece and nickel-plated rosette..... 2.25



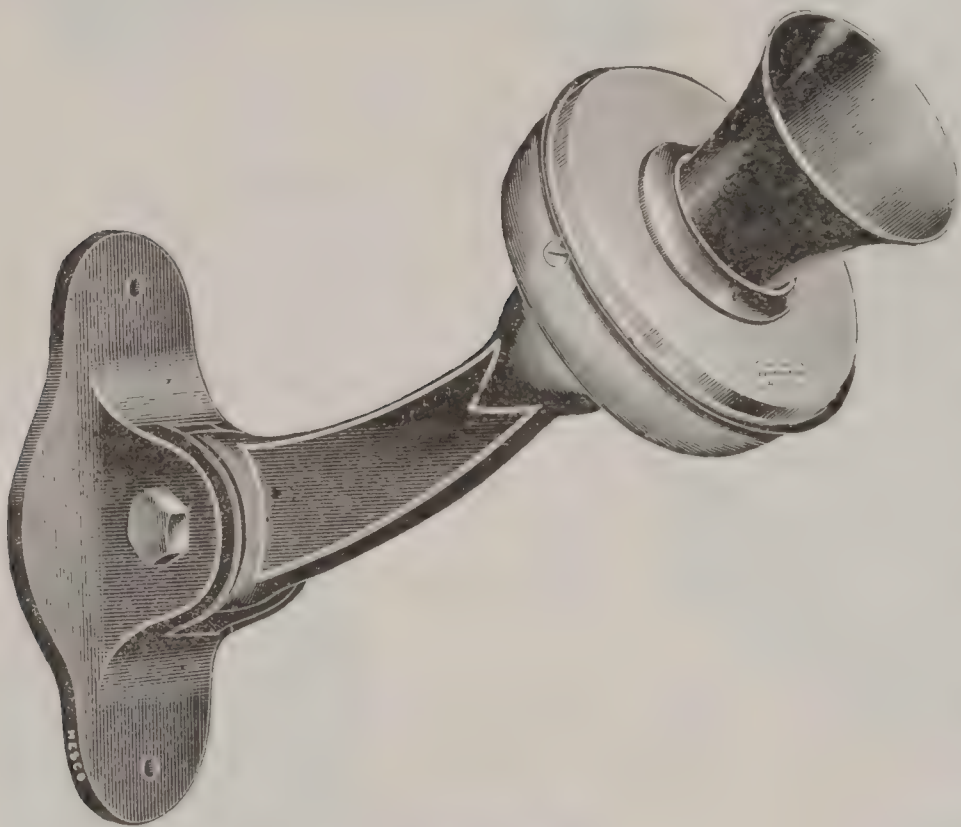
List No. 1493

This is our No. 1461 transmitter and mouth-piece mounted in an improved transmitter box, with induction coil inside. Every transmitter described is the "best." We make but one grade. The difference in cost is governed by the trimmings. We recommend the metal enclosed type as it is less liable to be influenced by outside noises.

List No.	Price.
1492	Without Switch and Side Binding Posts.....\$3.00
1493	With Switch and Side Binding Posts..... 3.50

LONG DISTANCE TRANSMITTERS.

If you are having trouble with your Transmitters, try one of ours.



List No. 1462

This Transmitter is our regular long distance type mounted on an arm and plate without induction coil box.

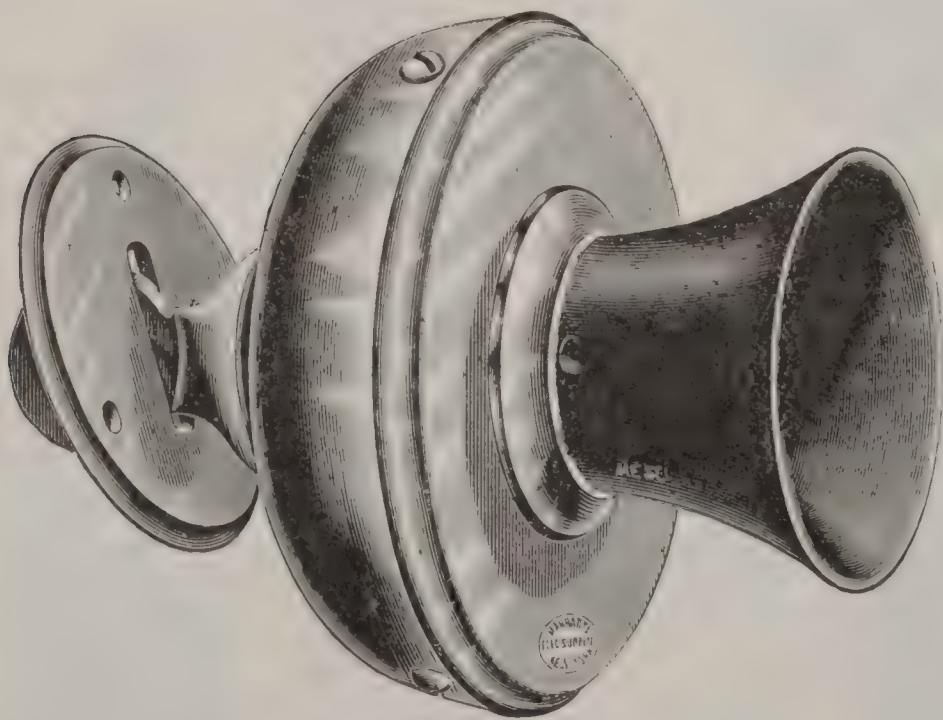
Hollow arm with conducting cord on inside.

Very neat and compact.

List No.

1462 Transmitter and Arm, without Coil.....each, **\$3.00**

Price.



List No. 1459

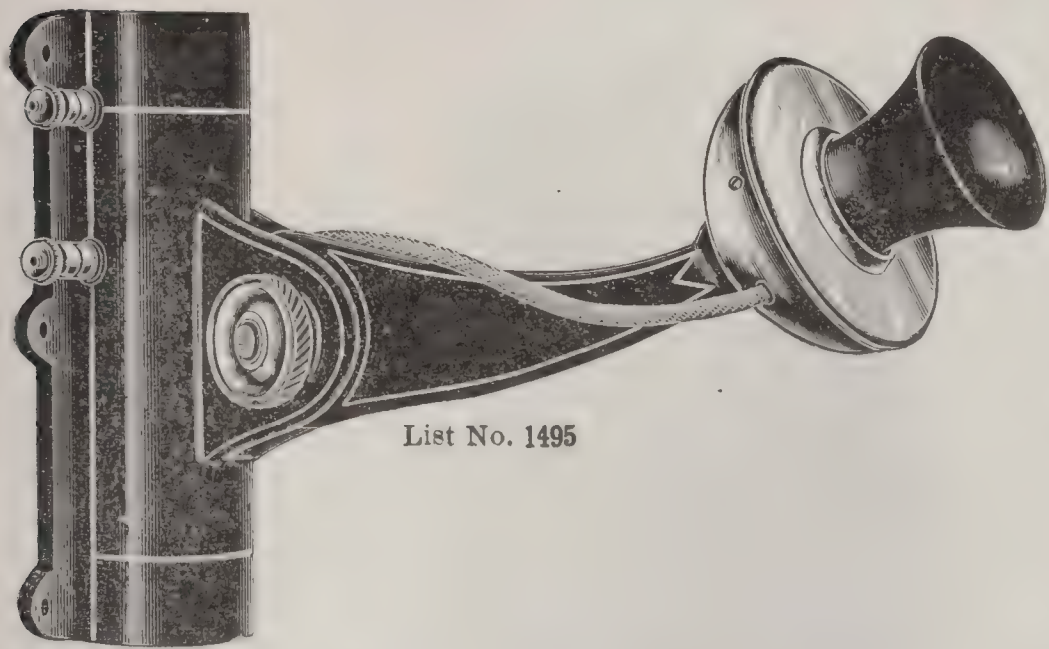
Long Distance Transmitter mounted on a nickel-plated Brass Knuckle Joint. Very handy for use in a limited space, and the least unsightly of any movable Transmitter made.

List No.

1459 Transmitter with Knuckle Joint.....each, **\$3.00**

Price.

LONG DISTANCE TRANSMITTERS.

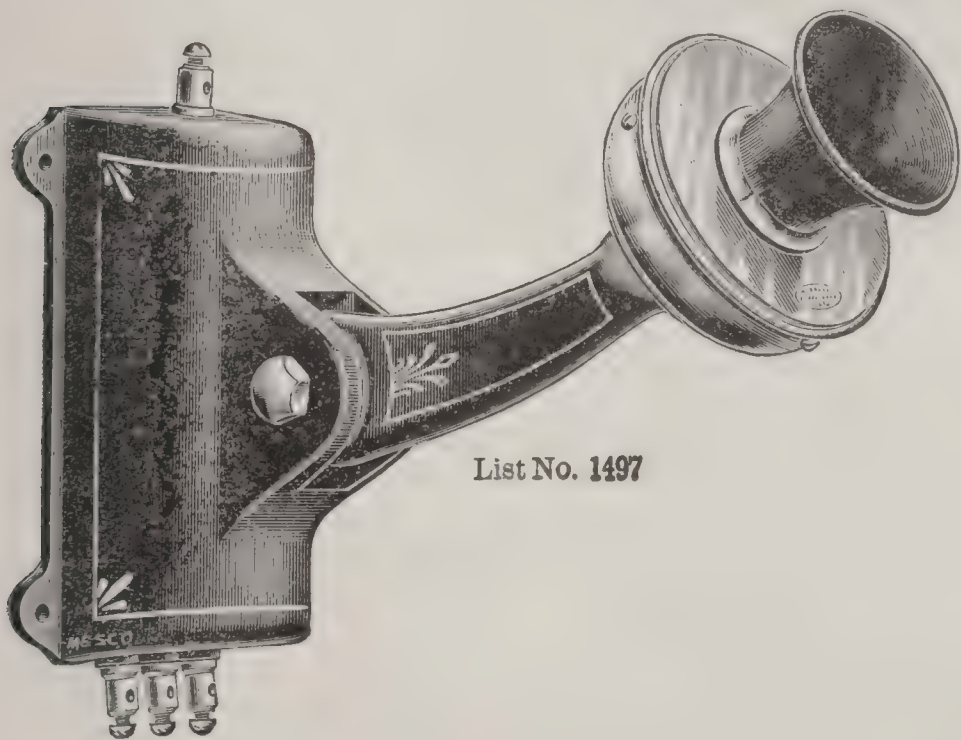


List No. 1495

A Perfect Transmitter

must be strongly constructed and yet remain sensitive to the most delicate sound. It should minimize all side tones and counter vibrations of the transmitter case. It should

operate with small battery power and also withstand a variation in current without generating the disagreeable frying and scratching noises so prevalent in many transmitters. It should give loud and clear articulation, transmitting the natural tone and expression of the voice. It should require no device for agitating the carbon as it should be designed to prevent packing. We guarantee all of these requirements to be embodied in our transmitters.

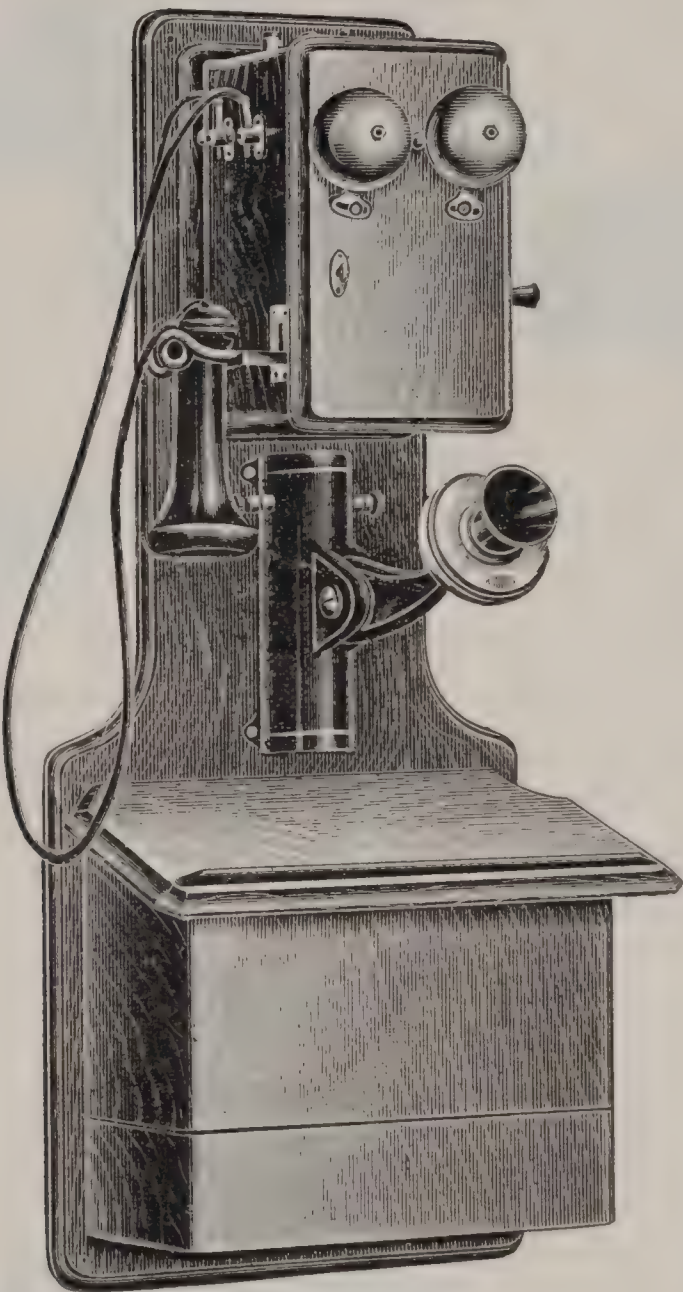


List No. 1497

This Transmitter is the same as No. 1495, except shorter induction coil box, and the conducting cord is concealed inside of the arm, which makes it practically a cordless arm transmitter.

List No.		Price.
1495	Arm Transmitter, with induction coil.....	each, \$5.00
1496	“ “ without “ “	“ 4.00
1497	Hollow Arm Transmitter, with induction coil.....	“ 4.50
1498	“ “ “ without “ “	“ 3.50

TELEPHONE APPARATUS.
LONG DISTANCE.



This instrument embodies the highest type of telephone apparatus manufactured. every part used in its construction is carefully tested before and after assembling, and the workmanship and finish is unexcelled. Each apparatus has :

Our solid back, Carbon Long Distance Transmitter, concealed post Bi-Polar Receiver, Long Lever Switch, inclosed Induction Coil, high grade Magneto Bells, plate Lightning Arrester, concealed Cord Arm.

The Generators used in this Telephone are the highest grade made and fully guaranteed.

BRIDGING.

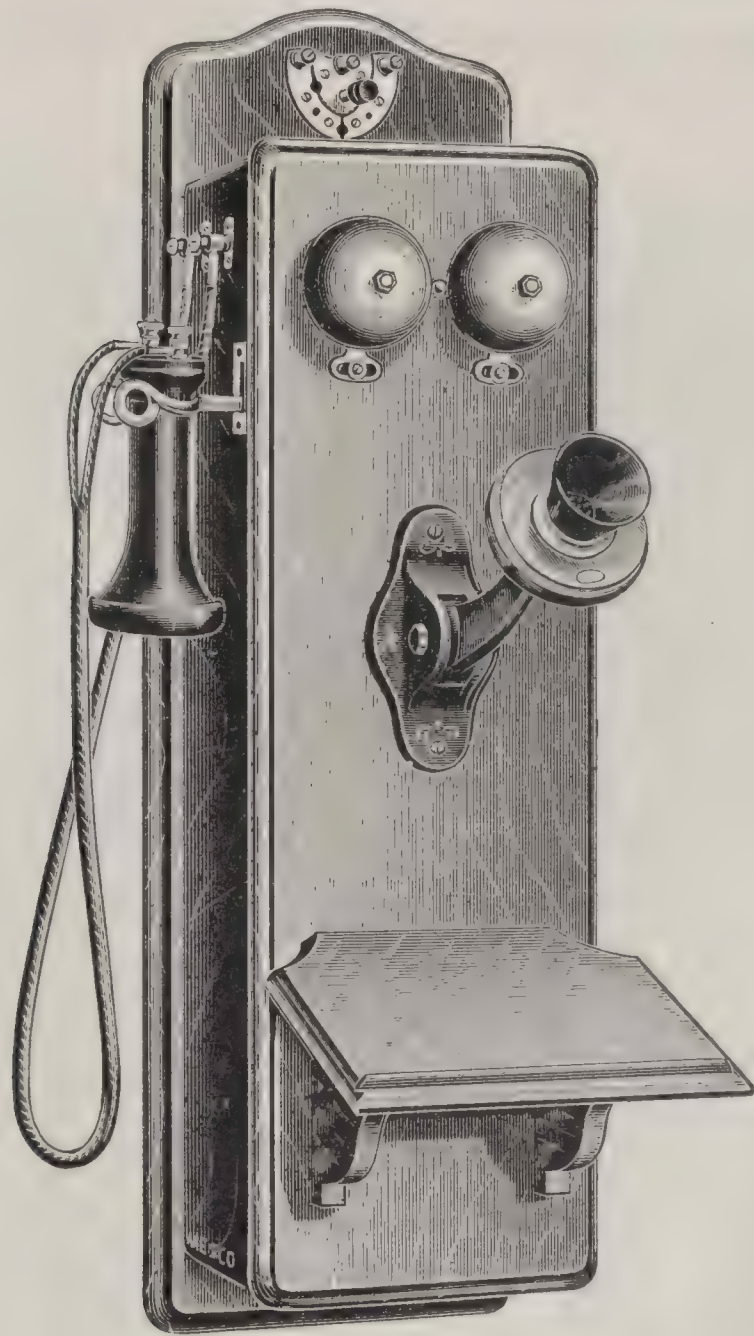
List No.									Price.
1468	Telephone with 1000 Ohm Ringer, 5-bar	50000 Ohm Generator	.....						\$25 00
1469	" " 1600 " " " " 50000 " "		.....						27 00
1470	" " " " " 6 " 100000 " "		.....						28 00
1500	" " 1000 " " 20000 " "		.....						24 00
1503	" " 1600 " " 20000 " "							26 00

SERIES.

1505	Telephone with 80 Ohm Ringer, 15000 Ohm Generator	20 00
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Woodwork is Walnut or selected quarter Oak highly polished.

TELEPHONE APPARATUS.
SERIES OF BRIDGING. LONG DISTANCE.



This New Model Wall Telephone has been designed to meet the demand for a neat and compact wall cabinet set for long distance series and bridging lines. The material and workmanship employed on this instrument is the same as used on the apparatus described on preceding page. The Transmitter is the Long Distance type with concealed cord, Adjustable Arm without Induction Coil Box. Long Lever Hook, high grade Magneto Generator, Induction Coil is fitted inside of cabinet.

The Double Pole Receiver with special binding posts will be supplied unless we are requested to substitute the Postless Bi-polar type at same price.
Every Telephone guaranteed.

SERIES.

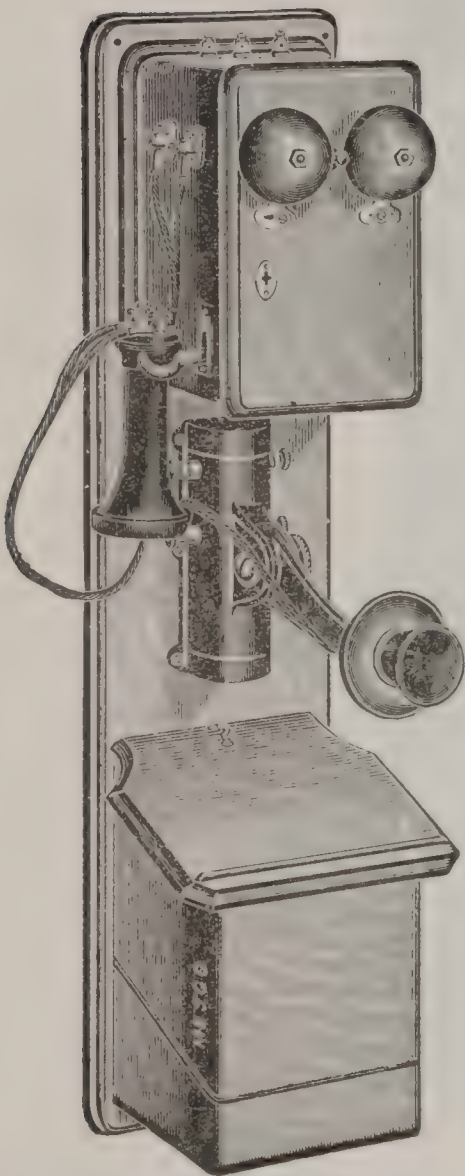
List No.		Price.
1535	Telephone with 80 Ohm Ringer, 20000 Ohm Generator.....	\$20 00

BRIDGING.

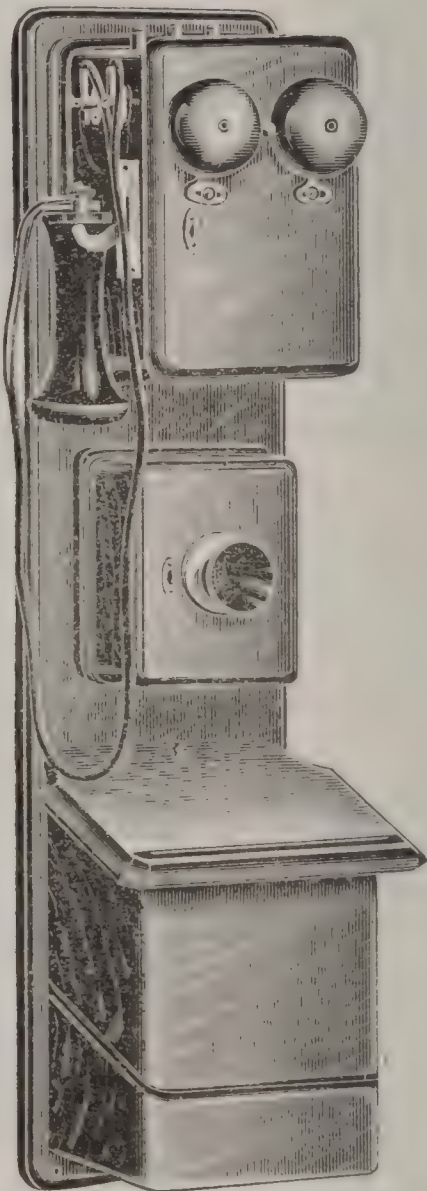
1472	Telephone with 1000 Ohm Ringer, 5-Bar 50000 Ohm Generator.....	25 00
1473	“ “ 1600 “ “ “ “ 50000 “ “	28 00
1474	“ “ “ “ “ “ 6 “ 100000 “ “	30 00
1530	“ “ 1000 “ “ “ “ 20000 “ “	24 00
1533	“ “ 1600 “ “ “ “ 20000 “ “	26 00

TELEPHONE APPARATUS.

SERIES FOR EXCHANGE OR PRIVATE LINES.



List No. 1508



List No. 1512

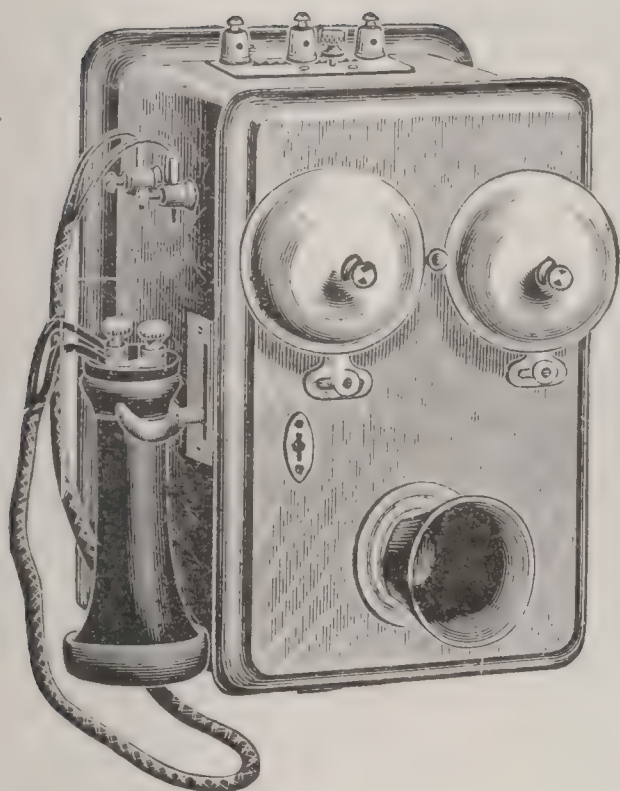
These instruments are designed specially for Exchange work or private lines when not over three telephones are connected on the same line. The Transmitters are the regular Long Distance type and will transmit satisfactorily on lines up to 500 miles in length. The Magneto Bells used are No. 826 Series, wound to ring on lines up to 25 miles. For longer series lines we recommend apparatus No. 1505 or 1535. The Receivers furnished are the standard or Double Pole types. Battery Box will hold one liquid cell of standard size or two Dry Cells.

Wood-work quarter Oak or Walnut, highly polished.
Every Telephone guaranteed.

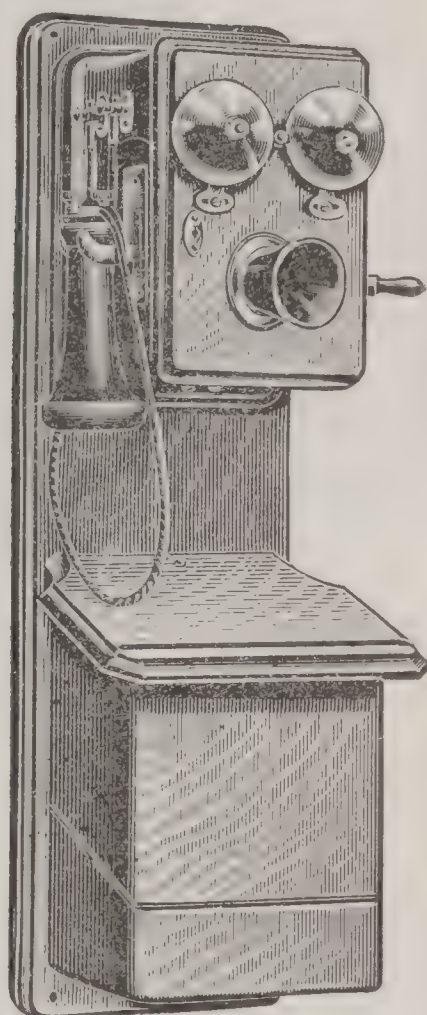
List No.		Price.
1508	One Series Telephone with 80 Ohm Ringer, 15000 Ohm Generator.....	\$18 00
1512	“ “ “ “ 80 “ “ 15000 “ “	18 00

TELEPHONE APPARATUS.

FOR SERIES WORK ONLY.



List No. 1514



List No. 1515

These Instruments are carefully constructed and finely finished.

For private lines up to 25 miles in length, they will give perfect satisfaction with two or three Telephones in circuit.

No. 1514 apparatus is furnished with a 10000 Ohm Generator; improved adjustable ringer magnets, wound 80 Ohms. Long Distance Transmitter attached to inside of bell box cover. Double Pole Receiver with cord; improved short lever double prong Hook

No. 1515 is similarly arranged with the addition of back-board and battery box.

Furnished in Oak or Walnut.

Every Telephone guaranteed.

List No.		Price.
1514	One Series Telephone, 80 Ohm Ringers, 15000 Ohm Generator.....	\$14 00
1515	" " " 80 " " 15000 " "	16 00

STANDARD DESK TELEPHONE.



FOR SERIES, BRIDGING OR BATTERY
CIRCUITS.

This Desk Telephone is very neat and symmetrical and thoroughly up-to-date in every item of its construction. The exposed metal parts are heavily nickel-plated and highly polished. Transmitter is the Long Distance enclosed type, with adjustable knuckle joint. Receiver Hook is the latest design, double prong with platinum contacts. Receiver is the Double Pole Postless Bi-polar type. The greatest care is used to make this the best Desk Telephone apparatus manufactured.

For series line a Magneto Bell with 80 Ohm ringer magnets is required in addition to the desk apparatus.

For Bridging line a magneto is required with 1000 to 1600 Ohm ringers to equalize with other bells on the circuit.

For plain battery call circuits, a push button, buzzer and battery are required extra.

It can also be used on an intercommunicating system with necessary switching apparatus and push buttons mounted on a separate base.

SERIES.

List No.	Price.
1048 Desk Set, complete with 80 Ohm Ringer, 15000 Ohm Generator.....	\$16 00

BRIDGING.

1049	Desk Set, complete with 1000 Ohm Ringer, 20000 Ohm Generator.....	16 00
1050	“ “ “ “ “ “ “ “ 5-bar, 50000 Ohm Generator	18 00
1051	“ “ “ “ “ 1600 “ “ “ “ “ “ “ “	18 00
1052	“ “ “ “ “ “ “ “ 6-bar, 100000 “ “ “ “	20 00

BATTERY CALL.

1518	Desk Set, complete with Buzzer and Push Button on a separate base	14 00
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Batteries not included.

DESK INTERCOMMUNICATING TELEPHONE



List No. 1536

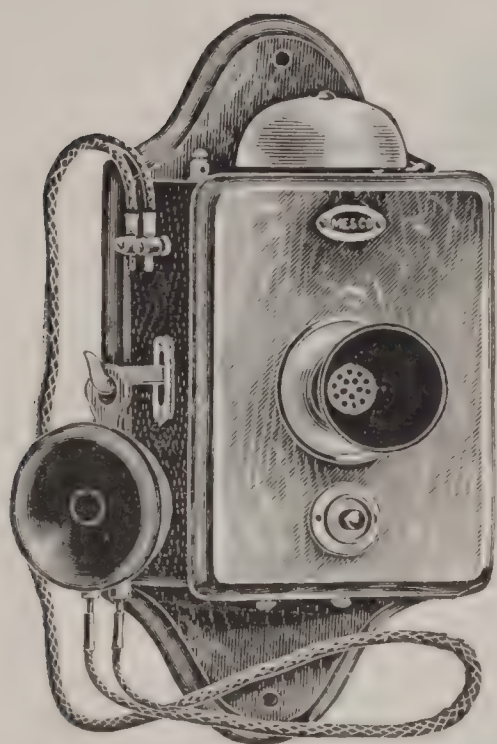
This design of Desk Telephone is durable and neat; the push button and intercommunicating switch lever and points are on the top of wood base; the buzzer and induction coil are mounted inside the base; the Transmitter is the enclosed solid back long distance type with adjustable knuckle joint. The hook is the latest design with platinum contacts. Receiver is the double pole type with improved binding posts. Three feet of conducting cord for the line and battery are furnished with each instrument. Flexible cord for the intercommunicating switch points is charged for extra at net price of five cents per yard, per conductor.

Every Telephone guaranteed.

List No.		Price.
1536	One Telephone with 6 Point Switch.....	\$11.00
1537	“ “ “ 10 “ “	12.00
1538	“ “ “ 15 “ “	13.00
1539	“ “ “ 20 “ “	13.50

Batteries not included.

SHORT LINE AND INTERIOR TELEPHONE.



SHORT LINE BATTERY PHONE.

For Hotels, Apartment Houses, Stores, Factories, Private Residences, Bank and Office Buildings, and all purposes where a private line telephone is desired.

A neat, compact, reliable and finely finished apparatus ; can be used for interior or outdoor lines up to 500 feet in length.

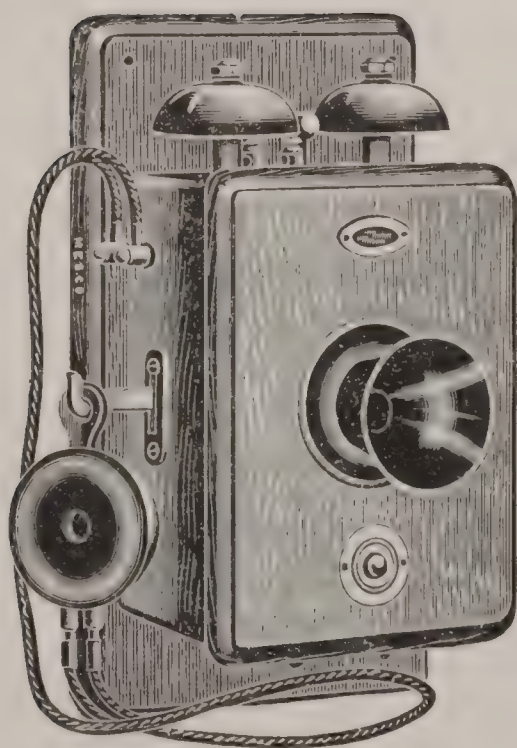
As easy to install as an ordinary Electric Bell.

The Transmitter is our long distance solid back type ; Pony Receiver with nickle-plated steel back. Vibrating Bell is enclosed inside the case with gong only exposed ; a neat nickel-plated push button is mounted on the front of case under the transmitter mouth-piece ; the case is made of Oak, cabinet finish.

List No.

Price.

1561 One Telephone, complete, without battery ... \$5 00



DOUBLE GONG SHORT LINE PHONE.

This Telephone is the same as the above with the exception of being fitted with two gongs instead of one which gives it a neater appearance and somewhat louder signal.

List No.

Price.

1481 One Telephone, complete, without battery .. \$6 00

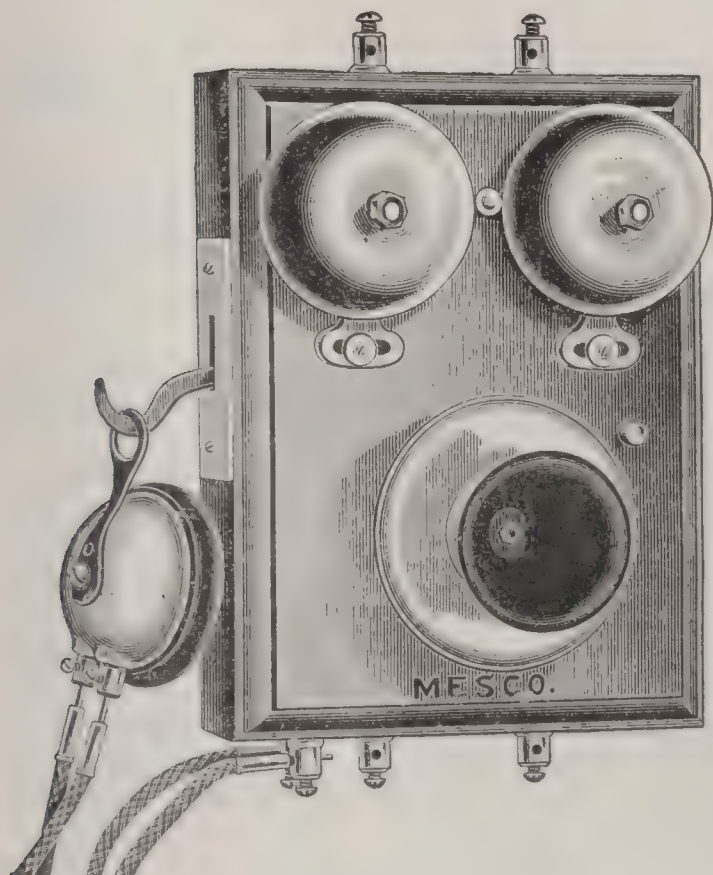
The best obtainable materials are used in the construction of these phones and each one is thoroughly tested before leaving factory.

Every Phone is guaranteed to give perfect satisfaction.

These Telephones are put up each in a neat box with full directions for installing and are stocked by all up-to-date dealers.

SHORT LINE AND INTERIOR TELEPHONES.

BATTERY CALL.



THE "SELECT" TELEPHONE.

Just the apparatus for house to house lines, Hotels, Factory and short line work in general on lines up to 500 feet in length.

These Phones can be installed by anyone, and are guaranteed to work perfectly.

Our Solid Back, Carbon Long Distance Type Transmitter and our No. 1448 Pony Receiver with cord is used on this Phone.

The bells are magneto type and give a loud, clear sound.

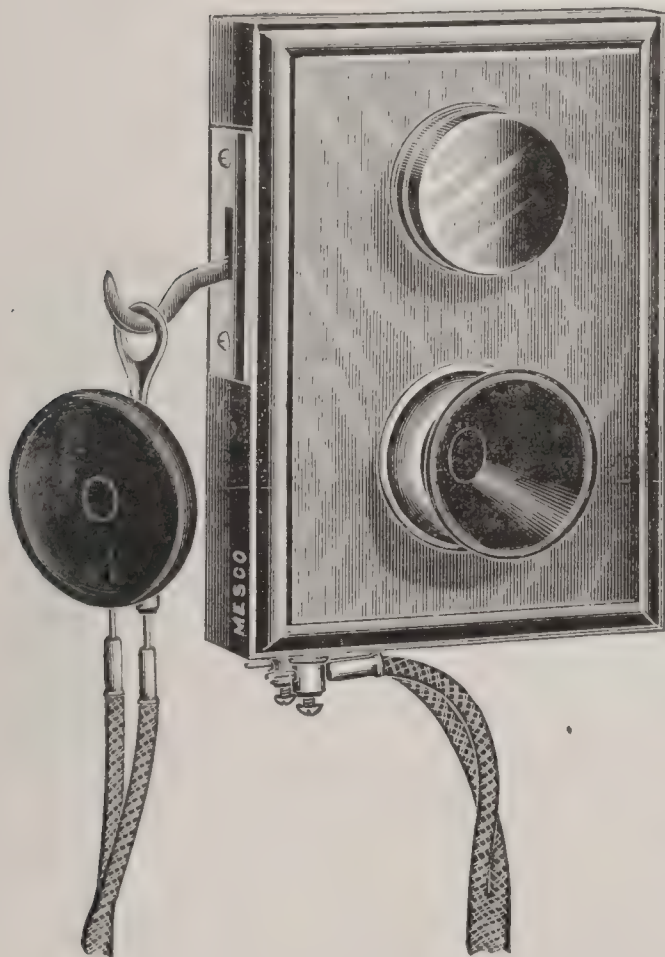
Oak case with nickel-plated trimmings.

Each Phone in a neat box with receiver and cord, as above, and wiring diagram, with complete directions.

List No.

Price.

1545 Telephone, complete \$7 00



THE "BEE" TELEPHONE.

A very neat pattern for Home, Office, or Hospital use.

This Phone is equipped with our No. 1936 Watch Case Buzzer (a decided advantage in many places), and our inclosed Type Carbon Transmitter.

The receiver is our Pony No. 1448 with cord.

Easy to install and are guaranteed to work perfectly on lines up to 500 feet in length.

Oak case with nickel-plated trimmings.

Our Telephones are constructed of the best material obtainable and we stand back of every one of them.

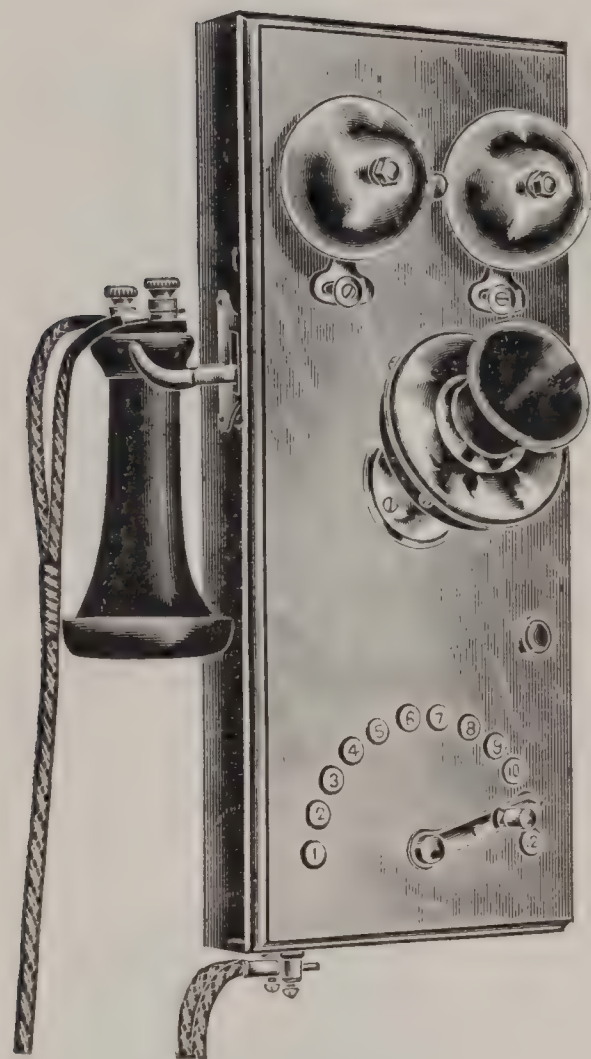
Each Phone is packed in a neat box with full directions and wiring diagram, complete, as above.

List No.

Price.

1546 Telephone, complete \$6 00

INTERCOMMUNICATING TELEPHONES.
BATTERY CALL.



HOTEL AND APARTMENT HOUSE
TELEPHONE.

This Telephone is intended for use in hotels, apartment houses and factories as a central instrument, located in office or main hall. Using our No. 1560 Phone in apartments or on different floors of factory.

The Central Phone can call and be called from any extension, but the extensions can not call or communicate with each other.

The Central Phone can be called regardless of the location of the switch, making the system semi-automatic.

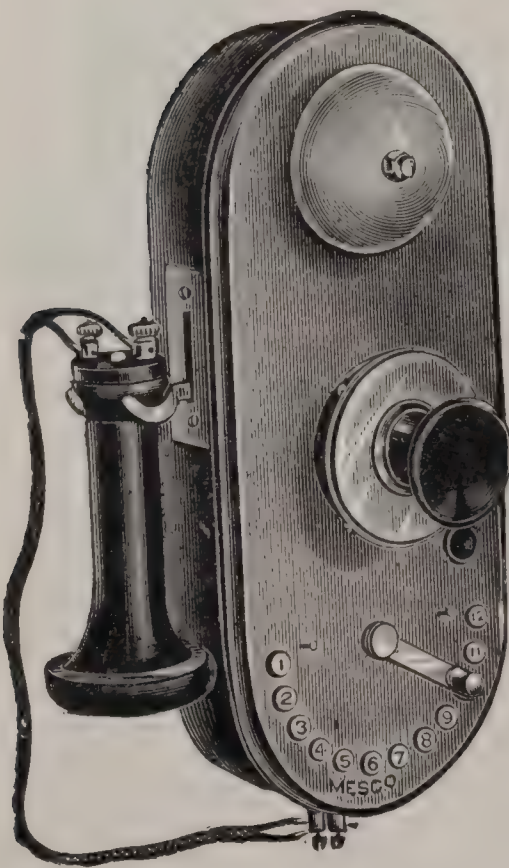
Batteries can all be located in one place, reducing repair expense to a minimum.

This outfit has our Long Distance Solid Back Carbon Transmitter, adjustable on knuckle joint, Double Pole Receiver with cord, Magneto Style Bells with Oak case and full nickel trimmings.

Full directions and wiring diagrams with each Phone.

List No.		Price.
1555	Telephone, 6 Point Switch.....	\$15 00
1556	“ 12 “ “	15 50
1557	“ 15 “ “	16 00
1558	“ 20 “ “	16 50

Batteries not included.



OFFICE AND FACTORY TELEPHONE.

A very neat and reliable Phone. It has our Long Distance Solid Back Carbon Transmitter, Double Pole Receiver with cord and Vibrating Battery Bell with gong only exposed.

This Phone can be used with No. 1560 apparatus same as above and is guaranteed to give satisfaction.

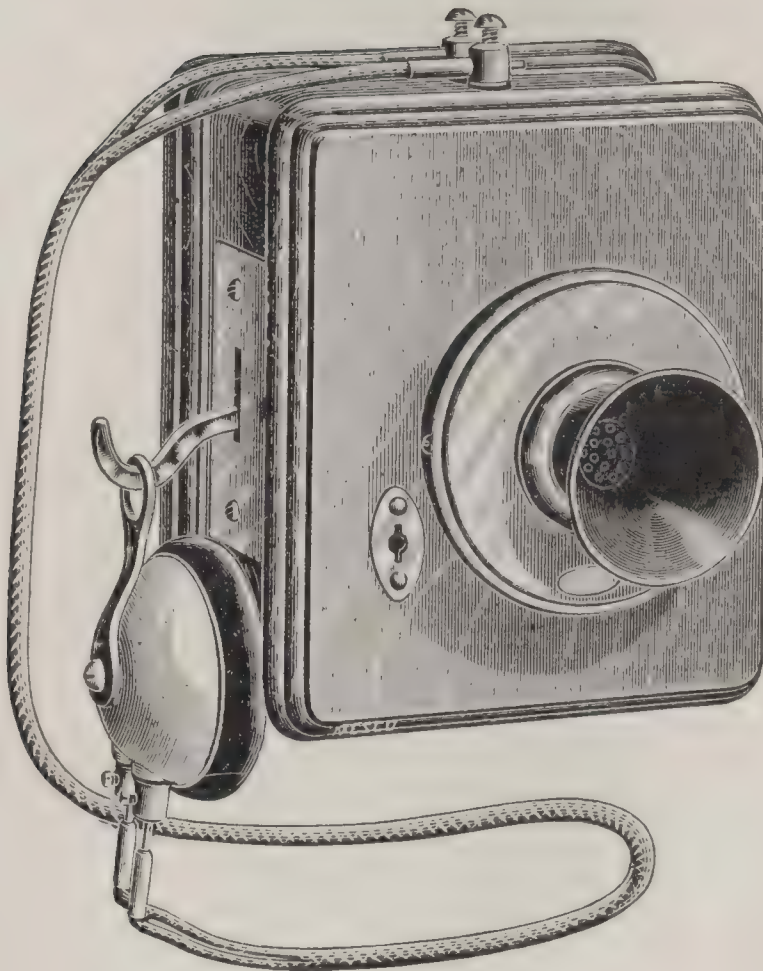
The case is of Oak with nickel-plated trimmings.

Full directions and wiring diagrams with each Phone.

List No.		Price.
1509	Telephone, 6 point Switch.....	\$10 50
1548	“ 12 “ “	11 00
1510	“ 15 “ “	11 50
1511	“ 20 “ “	12 00

Batteries not included.

HOTEL AND APARTMENT HOUSE TELEPHONE.



This Telephone is intended for use in connection with those illustrated on page 68 and will be found to be unequalled for Hotel, Apartment House or Factory work.

The parts are all high-grade, Transmitter is our Solid Back Long Distance Type, and the Receiver is our Solid Back Watch Case Type with cord.

Each Phone has a Buzzer for signal purposes mounted in case and push button mounted on the right side.

This Phone can be furnished with bell in place of buzzer at a special price.

Stock finish is Oak, can be made in any wood and finish to match trim at a special price.

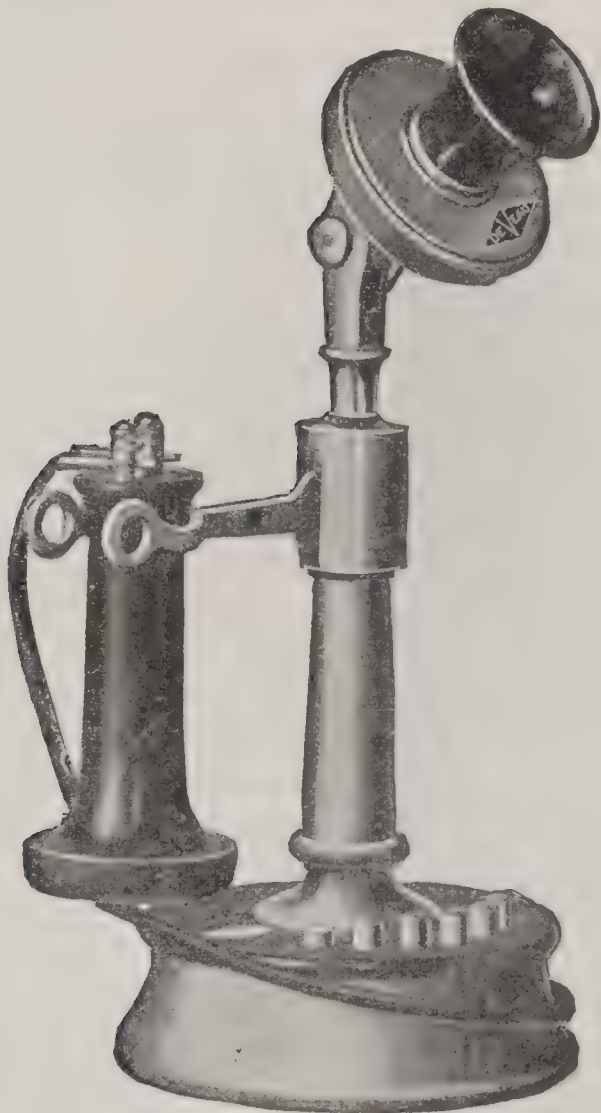
All exposed metal parts are nickel-plated.

Wiring diagrams and full directions furnished with each Phone.

List No.	Price.
1560 Telephone, complete, without Battery.....	\$7 00

INTERCOMMUNICATING SWITCHLESS
TELEPHONE.

Desk Type.



List No. 1506

This Switchless Desk Set far excels competing types of Intercommunicating Desk Telephones. It is artistically designed and an ornament to any desk. The base is made of cast metal, finished in highly polished nickel in which the Intercommunicating Switchless Mechanism is enclosed. Each Instrument is fitted with a Solid Back Bell Type Transmitter, and Solid Bi-Polar Receiver. Contact points of hook are enclosed, thereby affording protection from dust and mechanical injury. Instruments are furnished with three feet of Compound Conducting Cord, without extra charge. No expense has been spared in the manufacture of this Desk Set to make it mechanically and electrically perfect.

List No.	Price.
1506 One Automatic Switchless Desk Telephone, up to 6 Stations, complete, without batteries	\$27.00
Over 6 Stations, per Station extra.....	1.00

INTERCOMMUNICATING SWITCHLESS TELEPHONE.

This Instrument represents the latest improved type of Automatic Intercommunicating Telephone Apparatus on the market.

We call attention to the following advantages which this type of Automatic Switchless Telephone holds over the ordinary forms of Intercommunicating Apparatus:



List No. 1507.

FIRST.—Any station may be called by pressing the button, with the receiver either on or off the hook. When you put the receiver back on the hook, the connections are automatically restored.

SECOND.—By holding the button down on the first call and pressing any other button, one or more additional parties may be cut in and take part in the conversation, thereby obviating the necessity of repeating the same. This feature is possible only with this type of "Automatic Switchless" Apparatus, and in itself saves more time than all the recent improvements in Intercommunicating Telephones put together.

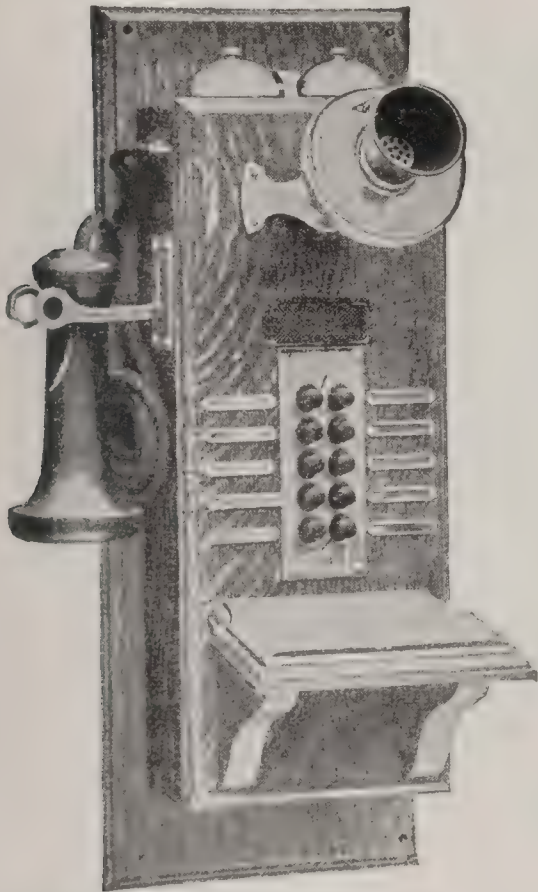
THIRD.—The act of pushing in the button all the way calls the station. When the pressure on the button is removed, it comes back half way and cuts in the talking circuit.

Two more wires should be run than there are stations to be connected, one of the two is used as Common Return Talking Wire, and the other one for ringing Battery Circuit. For example: For a six station equipment run eight wires. One more station than keyboard buttons indicate, can be accommodated on system. At each station there are required two cells of battery for talking. For ringing only one set of three or four batteries is required. Any open circuit battery will answer.

	Price.
1507 One Automatic Switchless Wall Telephone, complete, with hinged back-board and fanned terminal connections, up to 6 Stations	\$17 00
Over 6 Stations, per Station, extra.....	80

Batteries extra.

AUTOMATIC SWITCHLESS TELEPHONES.

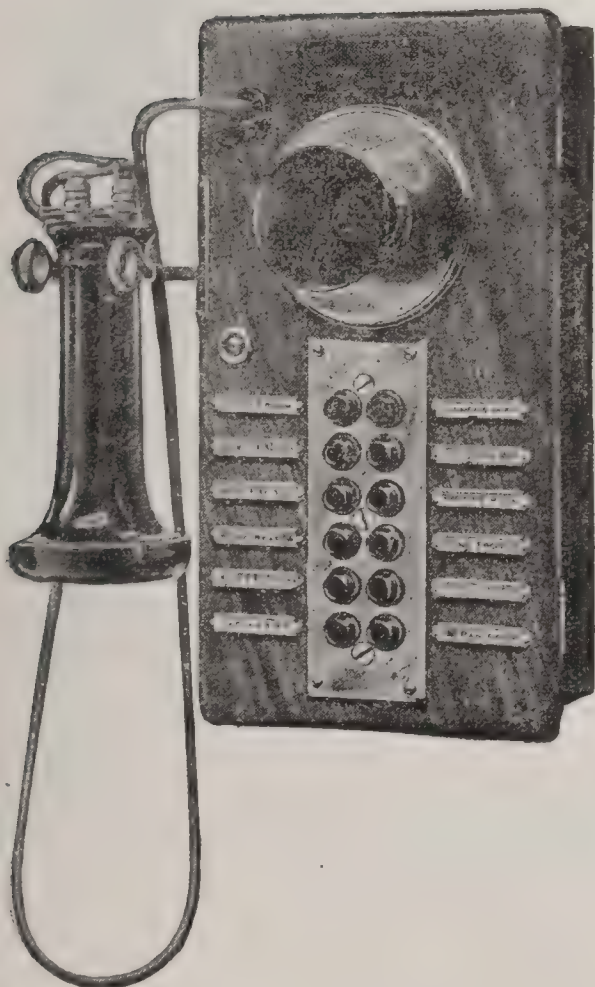


WALL TYPE.

Capacity 10 to 31 Stations inclusive, non-interfering, hinged back board, Adjustable Solid Back Transmitter, Double Pole Receiver. Oak case.

Ten Station Phone is 16 inches long, 6½ inches wide.

List No.	Price.
1054 Ten Stations, without Batteries.....	\$21 80
For each additional Station over 10	1 40



FLUSH TYPE.

Capacity 6 to 31 Stations inclusive.

Six Station Phone is 7⅞ inches long, 4¾ inches wide.

Non-interfering. Sets flush with the wall. Pressed steel outlet boxes provided with necessary knock out points for Iron or Flexible conduit.

Outlet box is separate from Phone and can be installed with other rough work.

All the mechanism is attached to front of Phone which is hinged to outlet box, permitting easy access to inspect or connect, without disturbing the surrounding wall.

Front made up in any wood or finish to match trim.

Easy to install, all connections plainly marked.

List No.	Price.
1055 Six Station including Outlet Box and Terminal Board.....	\$25 30
For each additional Station over 6..	1 40

Batteries extra.

AUTOMATIC SWITCHLESS TELEPHONES.

DESK TYPE.



Can be made any capacity from 16 to 31 stations inclusive.

The 16-station is $8\frac{1}{2}$ inches long, base is $4\frac{3}{4}$ inches wide, height over all 7 inches.

Add $\frac{5}{8}$ inch in length for each two stations over 16.

This Phone is non-interfering, Switches are automatically restored by placing hand phone on stand.

Stations can be called with hand phone on or off holder.

List No.	Price.
1056 Automatic Desk Phone, 16 Stations, without Batteries.....	\$34 00
For each additional two Stations over 16.....	1 80



APARTMENT HOUSE TELEPHONE.

To be installed in vestibule, acting as central station for telephones in various apartments.

Pushing in button calls desired party. Removable name plates of celluloid. This Phone has mechanism attached to face plate and can be furnished for any number of stations.

Depth back of face plate $2\frac{1}{2}$ inches. Size of 10-Station Phone $9\frac{3}{4}$ inches long by $5\frac{3}{4}$ inches wide.

Fronts are of metal, nickel-plated. Special finishes to order.

List No.	Price.
1057 Apartment House Phone, 6 Stations.....	\$18 00
For each additional two Stations over 6.....	1 40
Batteries extra.	

PUSH BUTTON TELEPHONE.



List No. 1484

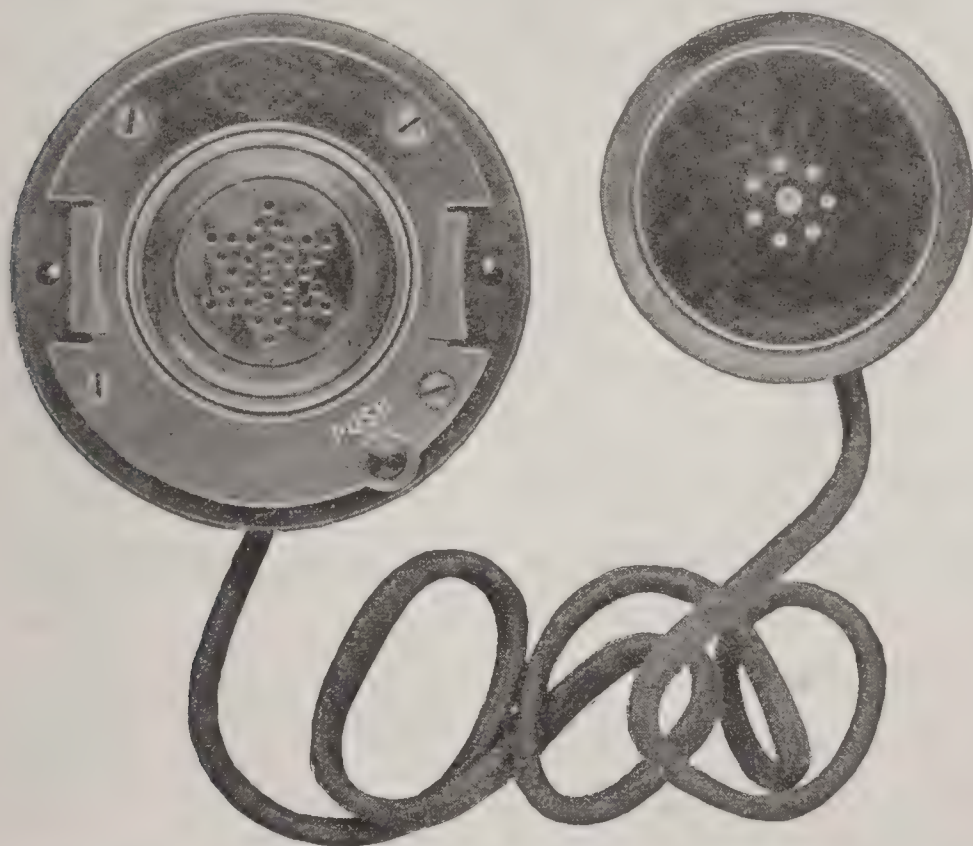
Dimensions: Diameter, $3\frac{1}{2}$ inches; Depth, 2 inches.

The Push Button Telephone consists of two parts, namely: Transmitter and Receiver, connected with flexible cord. It resembles the ordinary push button, and can be used as such, but is still a complete telephone instrument, and may be used for switchboard or straight line work.

Where electric bell or annunciator wires are in use at the present time the Push Button Telephone can be connected up in a very few minutes, using your present system of wiring, batteries, etc.

The instruments are equipped with double pole Receiver and long distance Transmitter. All springs are of phosphor-bronze, have a long leverage and are not turned at short angles. When springs are turned at short, sharp angles, they become weakened and soon break.

The metal parts can be finished to match the present hardware, such as Old Brass, Rustless Iron (Bower Barff), Oxidized Silver, etc. The base of the instrument is of black composition.



The watch case Receiver is of aluminum, making it very light and attractive. The Push Button is of hard rubber. Transmitter used is the long distance type.

Very Compact,
Neat and Reliable.

Complete wiring diagrams, showing connections for all the above mentioned systems, accompany each instrument.

RECEIVER REMOVED, SHOWING TRANSMITTER AND METHOD OF USING.

List No.		Price.
1484	Push Button Telephone, complete, with Bell.....	\$5.00
1485	" " " " without Bell.....	4.50

Batteries are not included.

THE INTERCOMMUNICATING SYSTEM

is designed so that each telephone is a central office in itself with its own switching device. It is intended primarily for use in offices and buildings where the expense of employing an operator would make a switch-board system prohibitive. It is thoroughly practicable up to twenty stations; beyond that number we would advise the switch-board system.

We make both metallic circuit as well as common return intercommunicating systems, and also instruments provided with generator call in place of the push button and bell signal. The generator, although more expensive, is highly desirable on lines exceeding six hundred feet in length, and also has an advantage in requiring no central ringing battery, as in the push button system. It makes, however, a larger and more cumbersome instrument, which is its chief objection in many places.

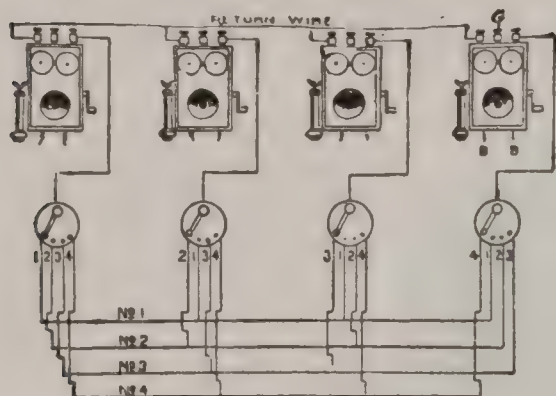


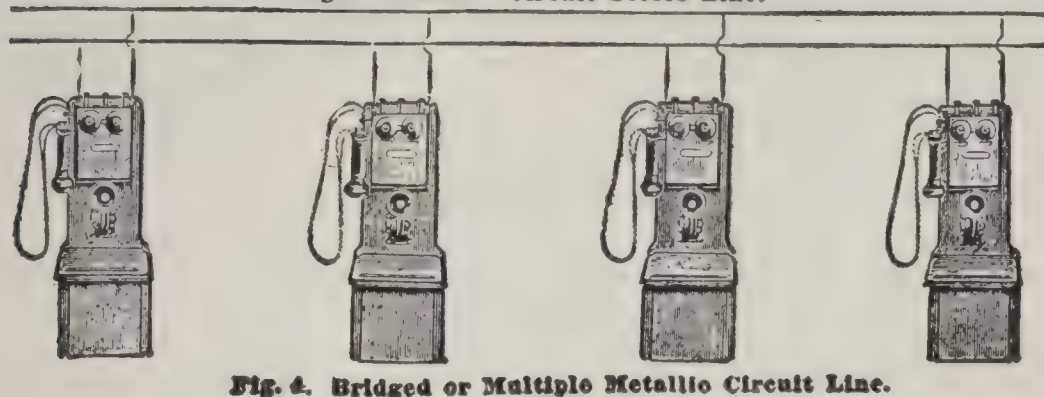
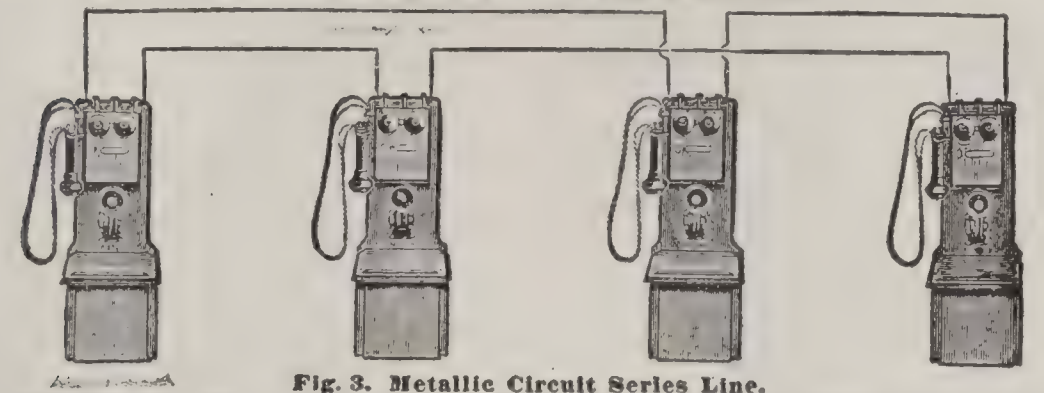
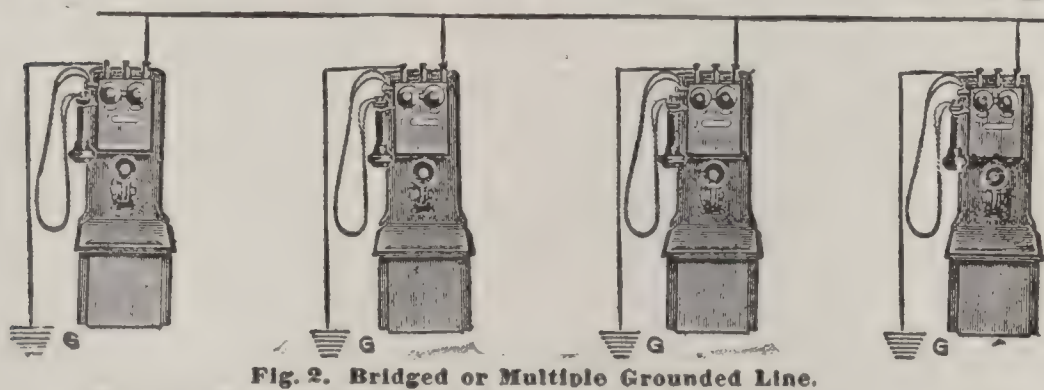
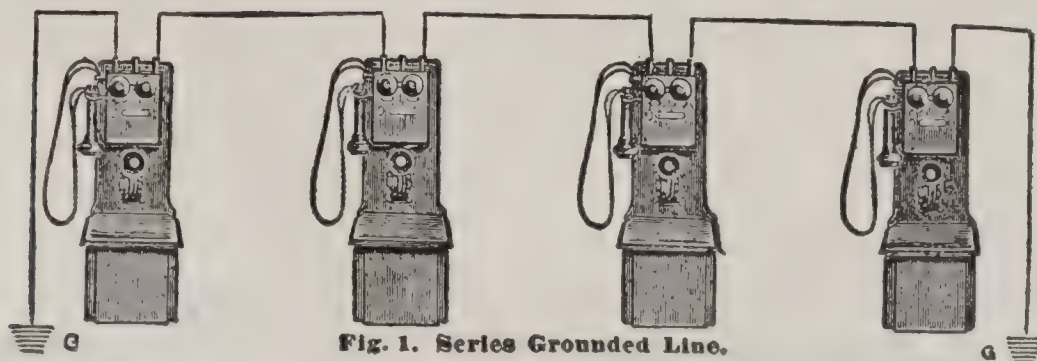
Diagram shows a method of arranging circuits for the switch-lever intercommunicating system of connecting telephones that allows of any one station being put into communication with any other on that system by the operator himself. The left hand figure at each switch designates the number of station

or instrument to which the switch is connected. No. 1 wishes to communicate with No. 3. He moves the lever of his switch to the point marked 3, and after ringing him up can carry on conversation. A similar action takes place when any of the other stations wish to communicate.

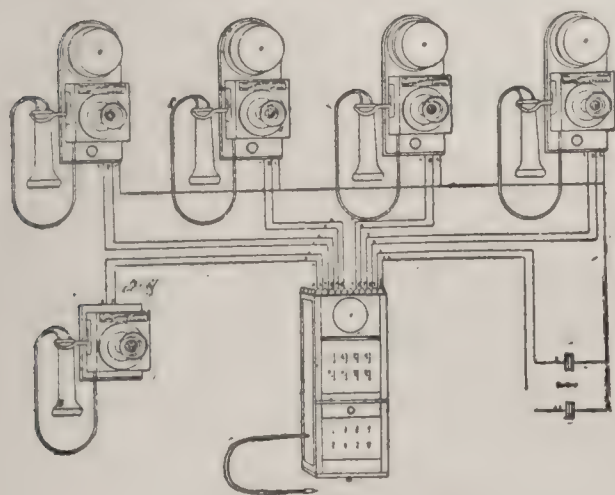
The intercommunicating switches on all telephones illustrated, are so constructed that it is not necessary to replace the lever on the left hand or home point after conversation is completed, but on plain switches purchased separate, this operation is necessary.

This system is specially adapted for communication in hotels, factories, office buildings, or any place where wires are all under one roof. When the distance between the terminal stations is over 500 feet the expense becomes high, owing to the number of wires required.

TELEPHONE LINE DIAGRAMS.



HOTEL ANNUNCIATOR TELEPHONE SYSTEM.



The office can be called from any room, and room can be called from the office. Any two rooms on the system can be connected in one circuit at the office by using a cord with two plugs.

This system fulfills the requirements of a return call annunciator, fire alarm and telephone system combined.

CAST BRONZE PUSH BUTTONS.

All of our Cast Bronze Push Buttons are made from the best solid bronze metal. They are highly polished, with even surface, and no sand holes appear on them. The metal is lacquered with a material that not only preserves the color, but protects the polished surface from the weather for a long period without discoloring.

All of the different finishes are on bronze, either dipped or plated.

The prices quoted under illustration of each push is for the finish designated by the following numbers:

Finish Number 1—Bronze, Polished (Natural Color of Metal).

Finish Number 2—Nickel-Plated.

Finish Number 3—Polished Bronze inlaid with Black.

Finish Number 4—Silver-Plated.

Finish Number 5—Silver Oxydized (Mottled).

Finish Number 6—Antique Copper (Dark Color).

Finish Number 7—Copper Oxydized (Mottled).

Finish Number 8—Bower Barff (Dead Black).

Finish Number 9—Brass (Plated).

Finish Number 10—Sand Blast (or Satin) on Bronze, unless otherwise specified; having the appearance of a dull, wrought copper finish.

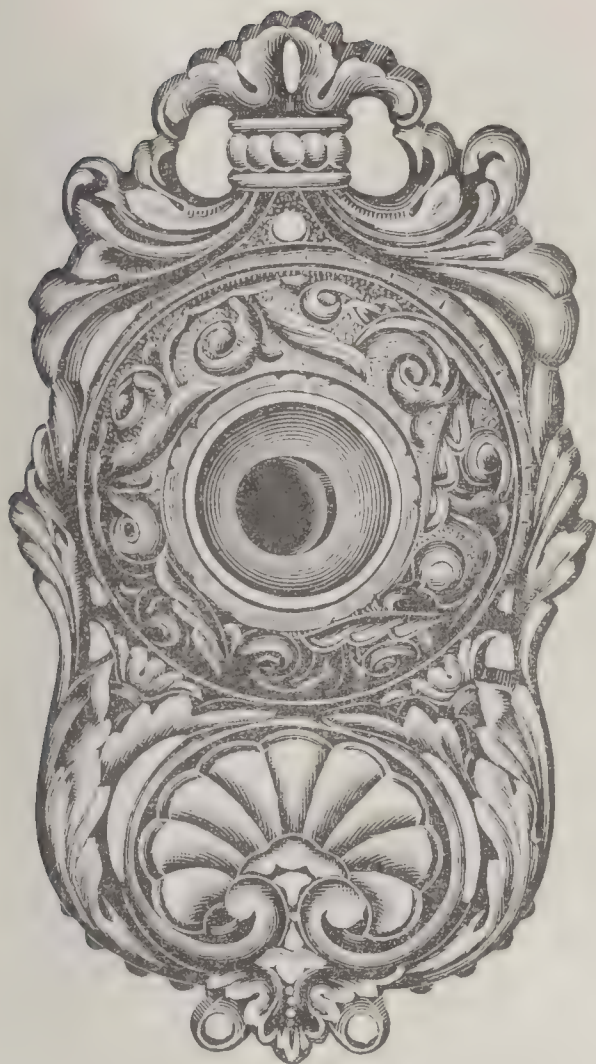
Finish Number 11—Lemon Brass.

Finish Number 12—Sand Blast (Oxydized Copper).

SPECIAL FINISHES MADE TO ORDER.

With the Pushes listed as "loose back," the fibre disc that holds springs is not attached to the shell or plate. The "Screw Cap" Push has disc attached, and can be connected by unscrewing the cap without disturbing the plate.

CAST BRONZE PUSH BUTTONS.



List No. 1101.



List No. 1102.

Cuts two-third size.

Loose back.

List No.		Price.
1101	Finish Nos. 1, 3, 6, 7 and 9.....	\$0 65
1102	" " " " "	65

For finish Nos. 4, 5, 8, 11 and 12, add 10 per cent.

Order push buttons by number. The style of finish is designated by number. See page 78.

CAST BRONZE PUSH BUTTONS.



List No. 1103

Size, 4½ x 2½ inches.



List No. 1106

Size, 4¼ x 2½ inches.

Loose back.

List No.	Price.
1103 Finish Nos. 1, 2, 6, 7 and 9	\$0 70

For finish Nos. 4, 5, 8, 10, 11 and 12, add 10 per cent.

1106 Finish Nos. 1, 3, 6, 7 and 9	70
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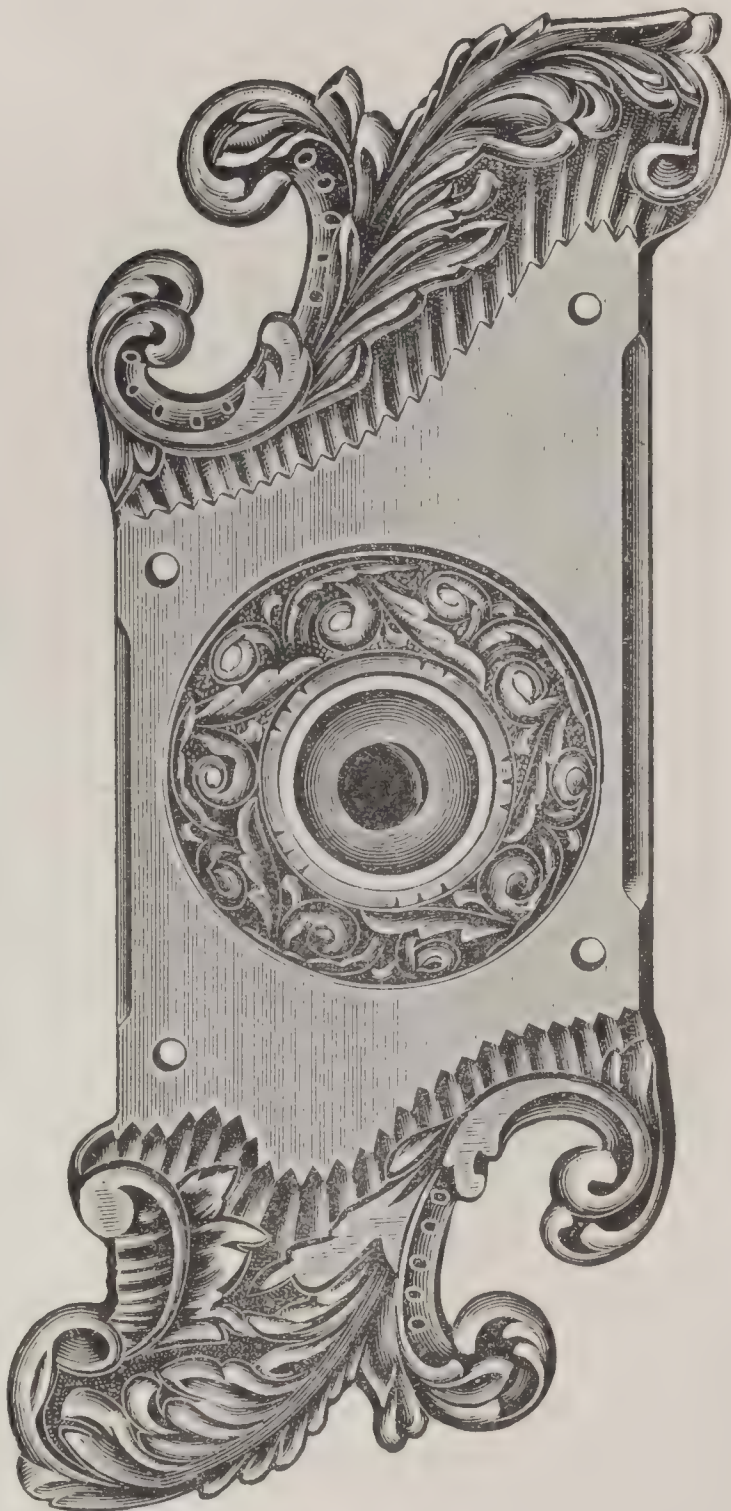
For finish Nos. 4, 5, 8, 11 and 12, add 10 per cent.

Order push buttons by number. The style of finish is designated by number. See page 78.

CAST BRONZE PUSH BUTTONS.



List No. 1105.
Size, 5½ x 2 inches.



List No. 1104.
Size, 7 x 2¾ inches.

Loose back.

List No.		Price.
1105	Finish Nos. 1, 2, 6, 7 and 9	\$0 85
1104	“ “ “ “ “	80

For finish Nos. 4, 5, 8, 10, 11 and 12, add 10 per cent.

Order push buttons by number. The style of finish is designated by number. See page 78.

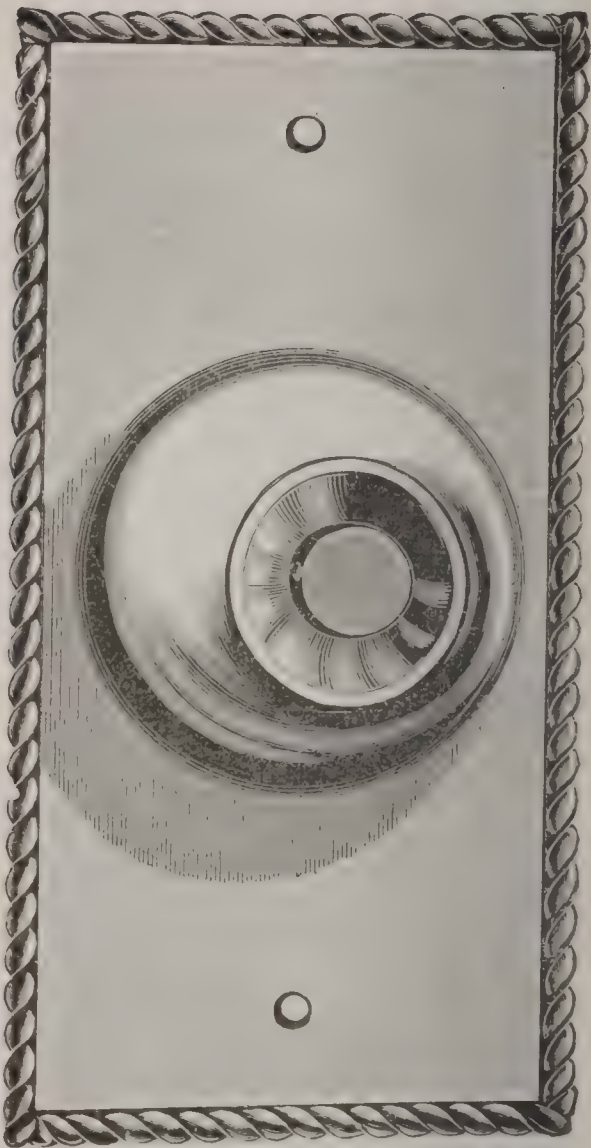
CAST BRONZE PUSH BUTTONS.



List No. 1111.

Size, 4 1/8 x 2 1/4 inches.

Loose back



List No. 1112.

Size, 5 1/4 x 2 3/4 inches.

Screw cap.

List No. 1128 same style as No. 1112, but with loose back.

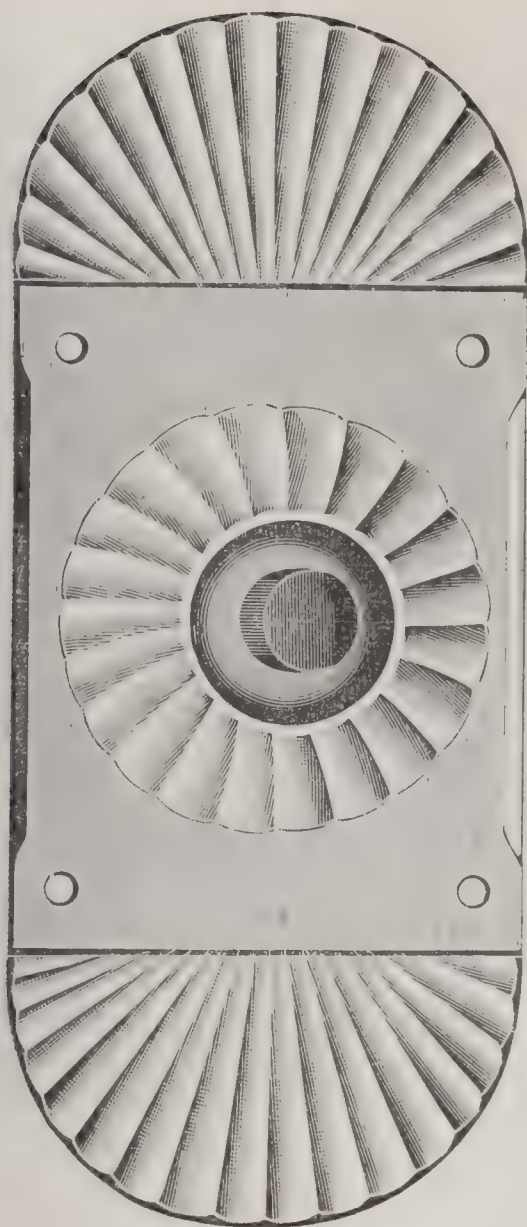
Size, 4 x 2 inches.

List No.		Price.
1111	Finish Nos. 1, 2, 6, 7 and 9	\$0 60
1112	" " " " "	90
1128	" " " " "	55

For finish Nos. 4, 5, 8, 10, 11 and 12, add 10 per cent.

Order push buttons by number. The style of finish is designated by number. See page 78.

CAST BRONZE PUSH BUTTONS.



List No. 1109.

Size, $5\frac{5}{8}$ x $2\frac{3}{8}$ inches.

List No. 1110

Size, $4\frac{5}{8}$ x 2 inches.

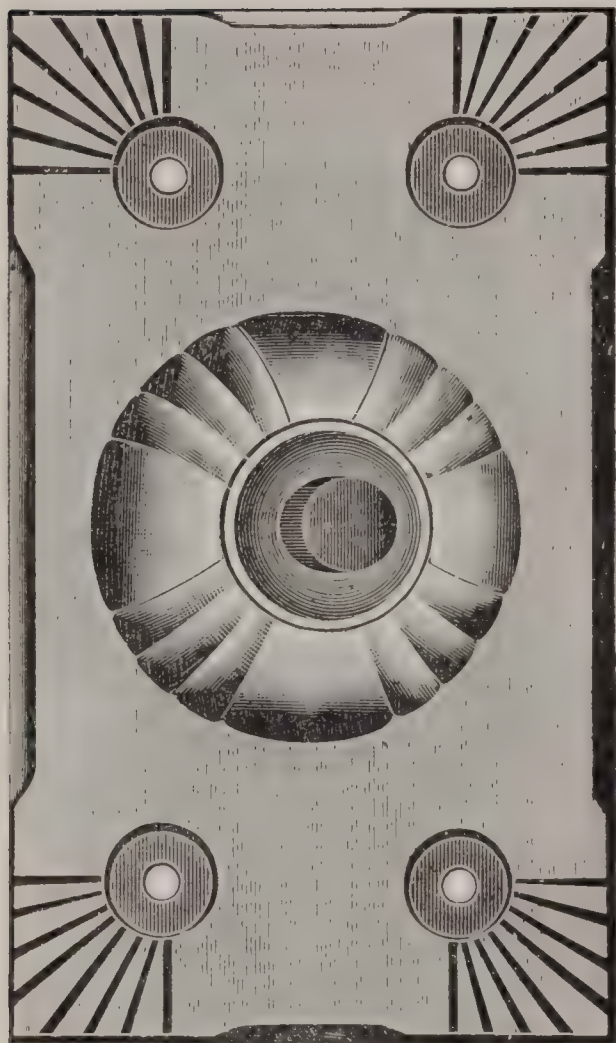
Loose back.

List No.		Price.
1109	Finish Nos. 1, 2, 6, 7 and 9	\$0 80
1110	“ “ “ “ “	75

For finish Nos. 4, 5, 8, 10, 11 and 12, add 10 per cent.

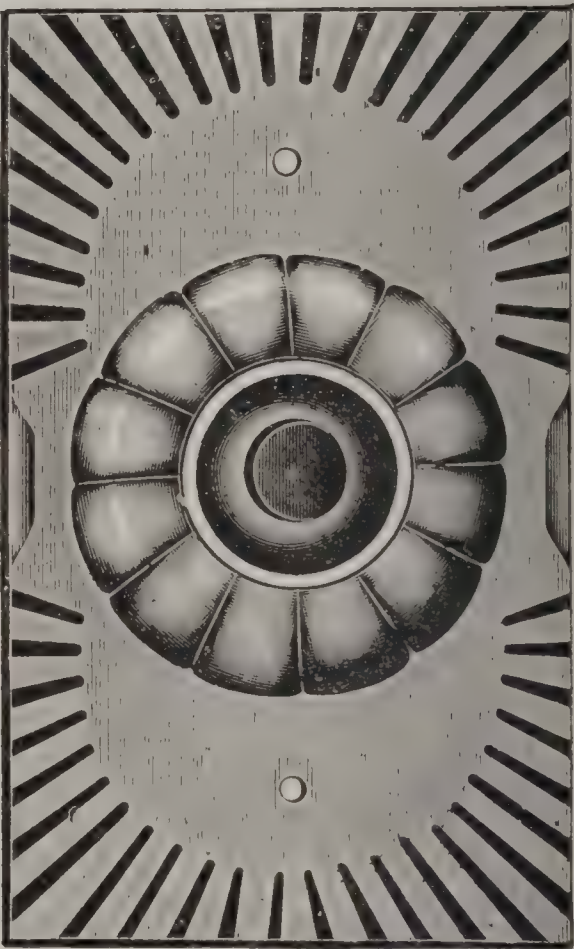
Order push buttons by number. The style of finish is designated by number. See page 78.

CAST BRONZE PUSH BUTTONS.



List No. 1107.

Size, 4¾ x 2⅞ inches.



List No. 1108.

Size, 4¾ x 2⅝ inches.

Loose back.

List No.	Price.
1107 Finish Nos. 1, 2, 6, 7 and 9	\$0 85
1108 " " " " "	80

For finish Nos. 4, 5, 8, 10, 11 and 12 add 10 per cent.

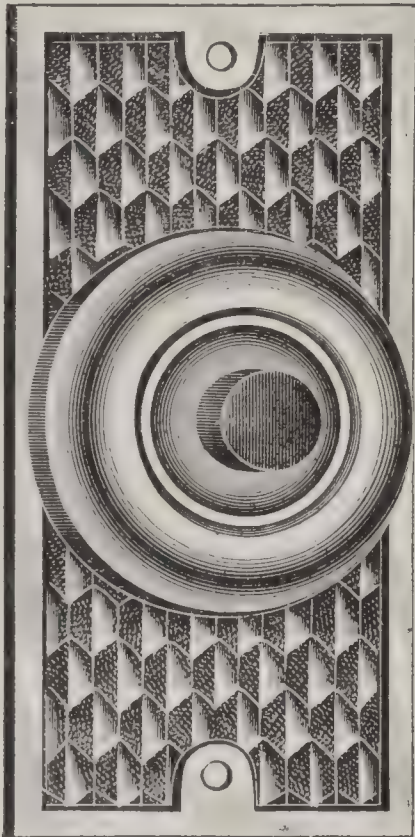
Order push buttons by number. The style of finish is designated by number. See page 78.

CAST BRONZE PUSH BUTTONS.



List No. 1127.

Size, 4 x 2 inches.



List No. 1118.

Size, 4 x 1 3/8 inches.

Loose back,

List No.		Price.
1127	Finish Nos. 1, 3, 6, 7 and 9.....	\$0 60
1118	" " " " "	50

For finish Nos. 4, 5, 8, 11 and 12, add 10 per cent.

Order push buttons by number. The style of finish is designated by number. See page 78.

CAST BRONZE PUSH BUTTONS.



List No. 1113.

CUT FULL SIZE (LOOSE BACK).



List No. 1114.

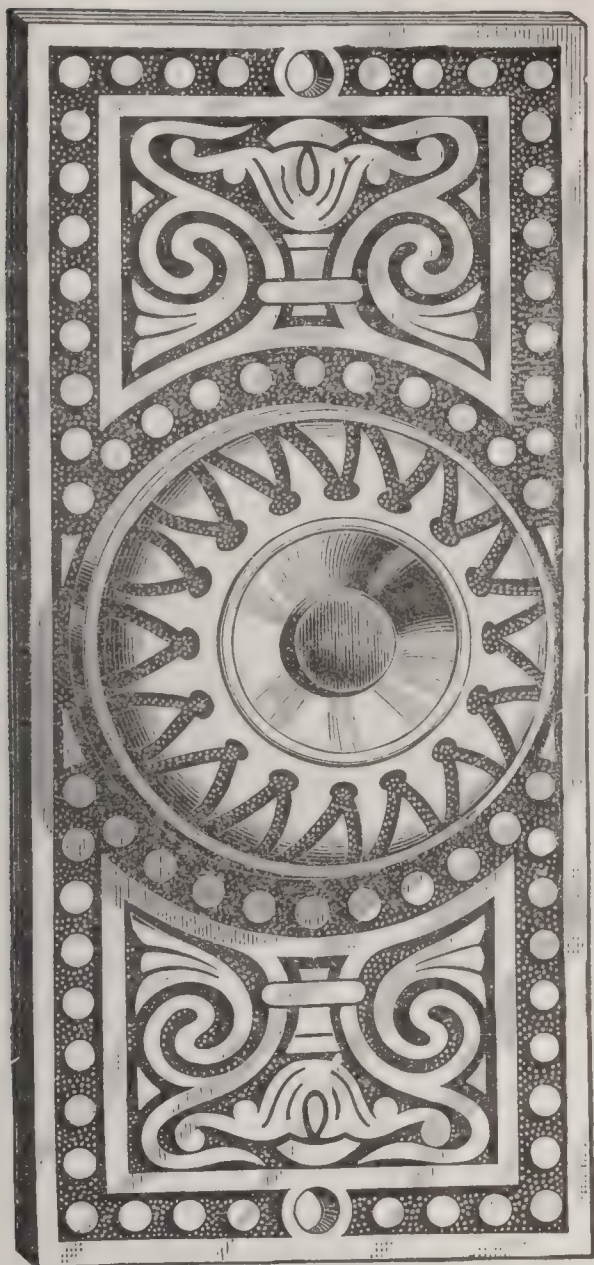
SIZE, 2½x5¾ INCHES (SCREW CAP).

List No.	Price.
1113 Finish Nos. 1, 3, 6, 7 and 9, each.....	\$0.70
1114 " " 1, 3, 6, 7 and 9, " .....	.95

For Finish Nos. 4, 5, 8, 11 and 12, add 10 per cent.

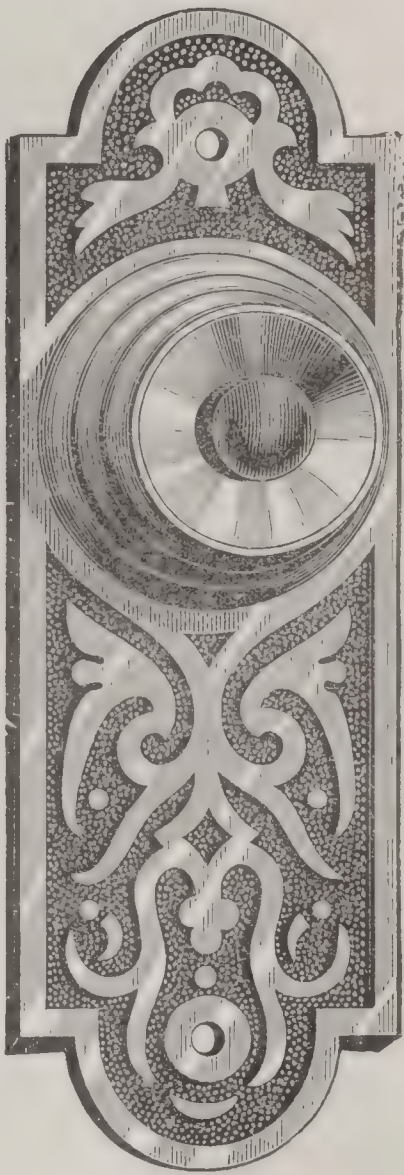
Order push buttons by number. The style of finish is designated by number. See page 78.

CAST BRONZE PUSH BUTTONS.



List No. 1115.

SIZE, 2 5/8 x 5 7/8 INCHES (SCREW CAP).



List No. 1116.

SIZE, 1 3/4 x 5 3/8 INCHES (LOOSE BACK).

List No.	Price.
1115 Finish Nos. 1, 3, 6, 7 and 9, each.....	\$1.05
1116 “ “ 1, 3, 6, 7 and 9, “ ..	.60

For Finish Nos. 4, 5, 8, 11 and 12, add 10 per cent.

Order push buttons by number. The style of finish is designated by number. See page 78.

CAST BRONZE PUSH BUTTONS.



List No. 1117.

CUT FULL SIZE (LOOSE BACK).



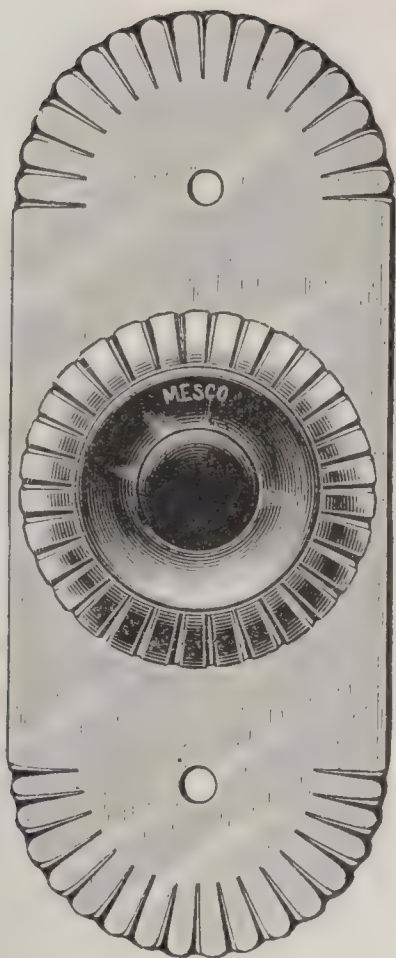
List No. 1125.

CUT FULL SIZE (LOOSE BACK.)

List No.	Price.
1117 Finish Nos. 1, 3, 6, 7 and 9, each.....	\$0.55
1125 " " 1, 3, 6, 7 and 9, " .....	.60
For Finish Nos. 4, 5, 8, 11 and 12, add 10 per cent.	

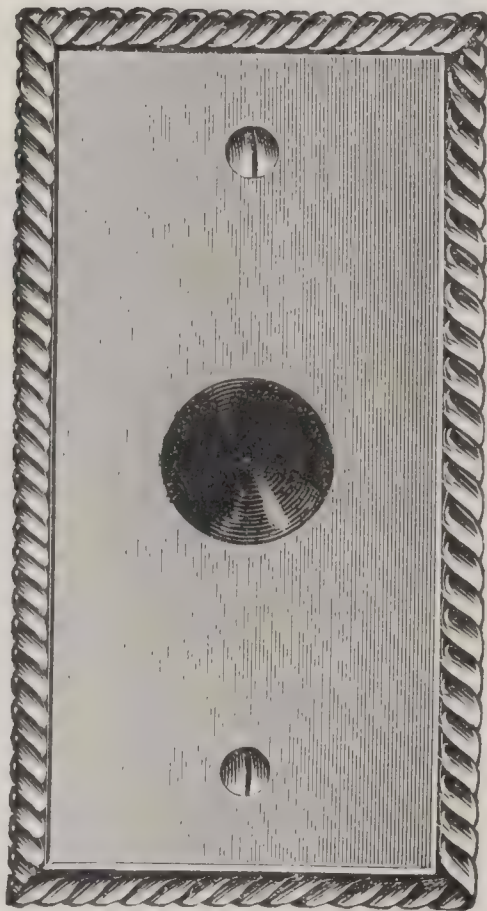
Order push buttons by number. The style of finish is designated by number. See page 78.

CAST BRONZE PUSH BUTTONS.



List No. 1119.

CUT THREE-QUARTER SIZE.



List No. 1120.

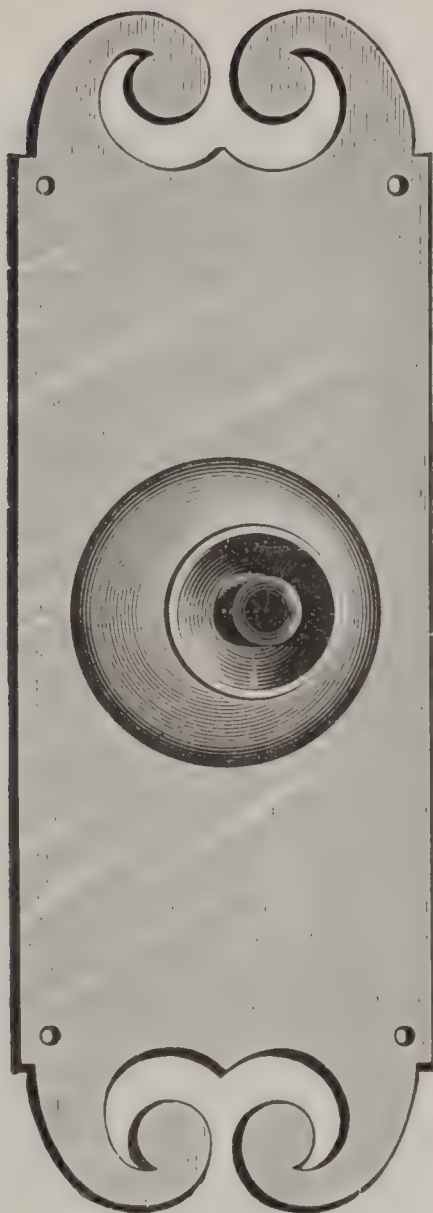
CUT FULL SIZE.

List No.		Price.
1119	Finish Nos. 1, 2, 6, 7 and 9, each.....	\$0.65
1120	“ “ 1, 2, 6, 7 and 9, “ .....	.50

For Finish Nos. 4, 5, 8, 10, 11 and 12, add 10 per cent.

Order push buttons by number. The style of finish is designated by number. See page 78.

CAST BRONZE PUSH BUTTONS.



List No. 1202.

SIZE, 7½x2½ INCHES (SCREW CAP).



List No. 1203.

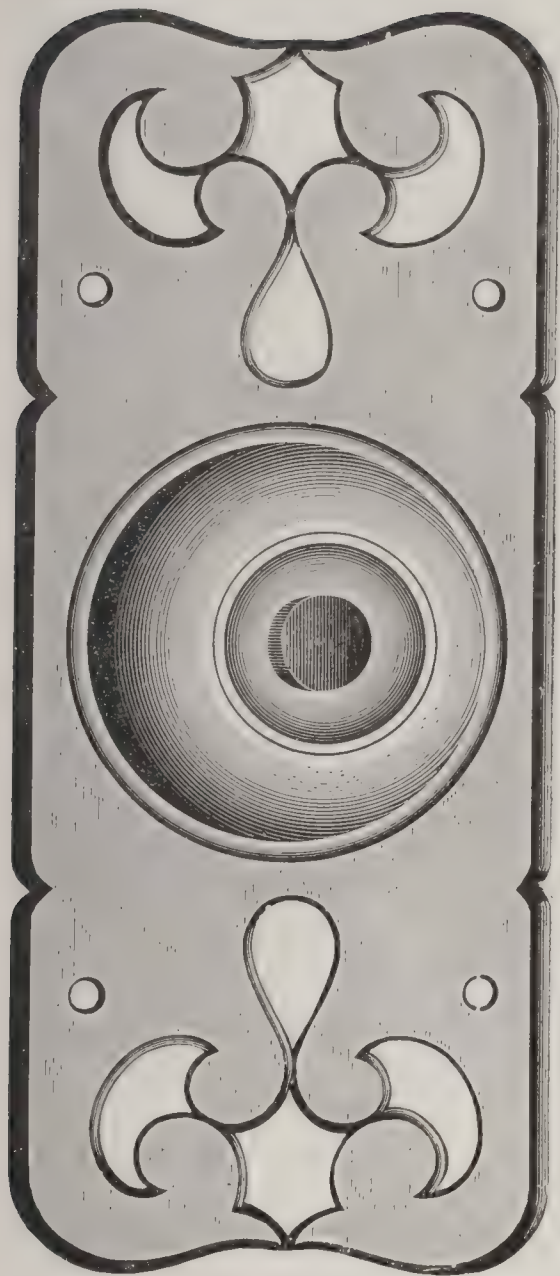
SIZE, 6¾x2¾ INCHES (SCREW CAP).

List No.		Price.
1202	Finish Nos 1, 2, 6, 7 and 9, each.....	\$1.15
1203	“ “ 1, 2, 6, 7 and 9, “	1.15

For Finish Nos. 4, 5, 8, 10, 11 and 12, add 10 per cent.

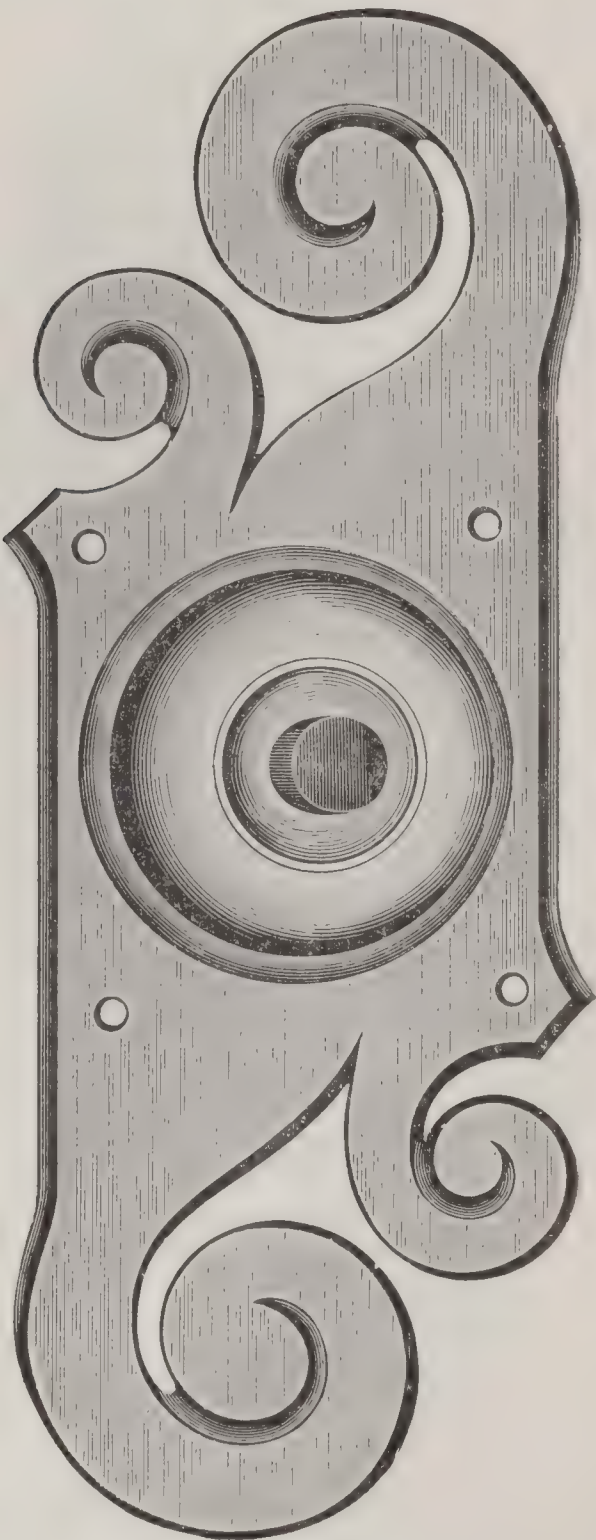
Order push buttons by number. The style of finish is designated by number. See page 78.

CAST BRONZE PUSH BUTTONS.



List No. 1201.

Size, $5\frac{3}{8}$ x $2\frac{1}{2}$ inches.



List No. 1204.

Size, $7\frac{1}{8}$ x $2\frac{5}{8}$ inches.

Loose back.

List No.		Price.
1201	Finish Nos. 1, 2, 6, 7 and 9	\$1 20
1204	“ “ “ “ “	90

For finish Nos. 4, 5, 8, 10, 11 and 12, add 10 per cent.

Order push buttons by number. The style of finish is designated by number. See page 78.

CAST BRONZE PUSH BUTTONS.



List No. 1205.

Size, 4¾ x 2½ inches.



List No. 1206.

This pattern made in 3 sizes.

Loose back.

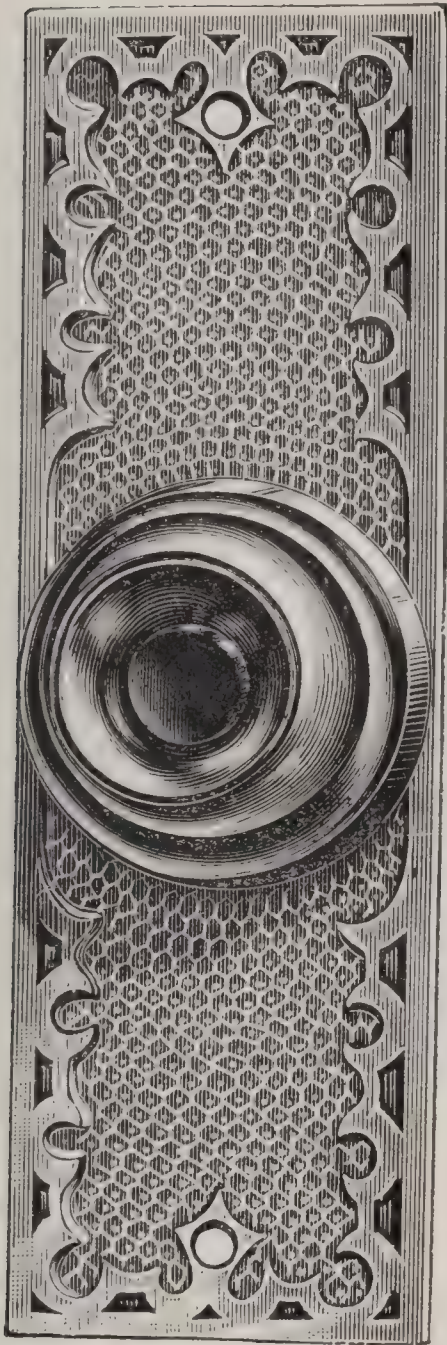
List No.		Price.
1205	Finish Nos. 1, 2, 6, 7 and 9	\$0 75
1206	Size, 4¼ x 2¼ inches. Finish Nos. 1, 2, 6, 7 and 9	65
1207	" 3½ x 3½ " " " " " "	75
1208	" 6¼ x 2¾ " " " " " "	1 00

For finish Nos. 4, 5, 8, 10, 11 and 12, add 10 per cent.

Order push buttons by number. The style of finish is designated by number. See page 78.

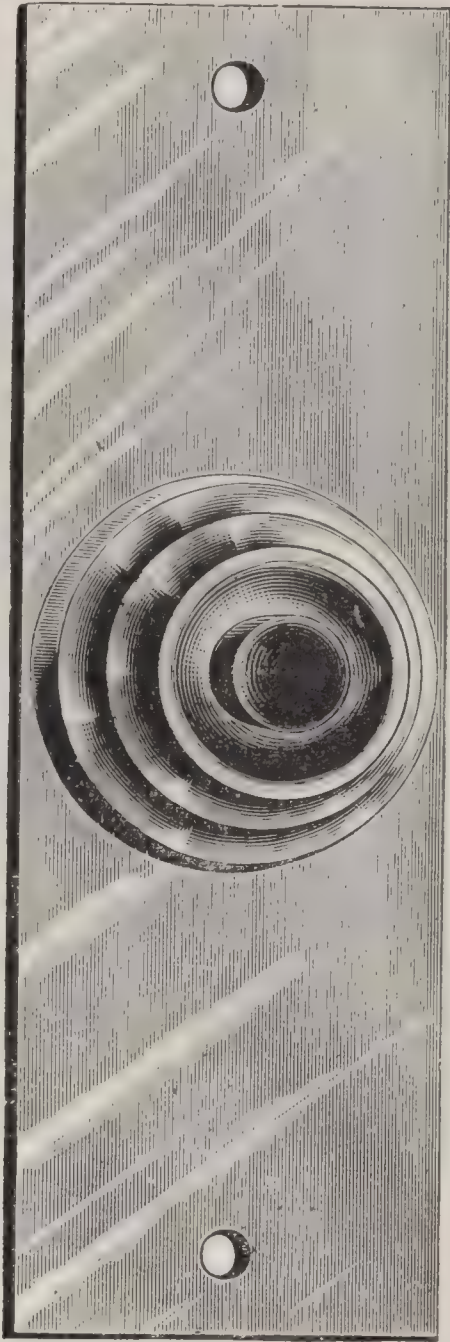
CAST BRONZE PUSH BUTTONS.

Plain and Ornamental, Narrow Pushes.



List No. 1122 and 1123.

CUT FULL SIZE (SCREW CAP).



List No. 1209 and 1210.

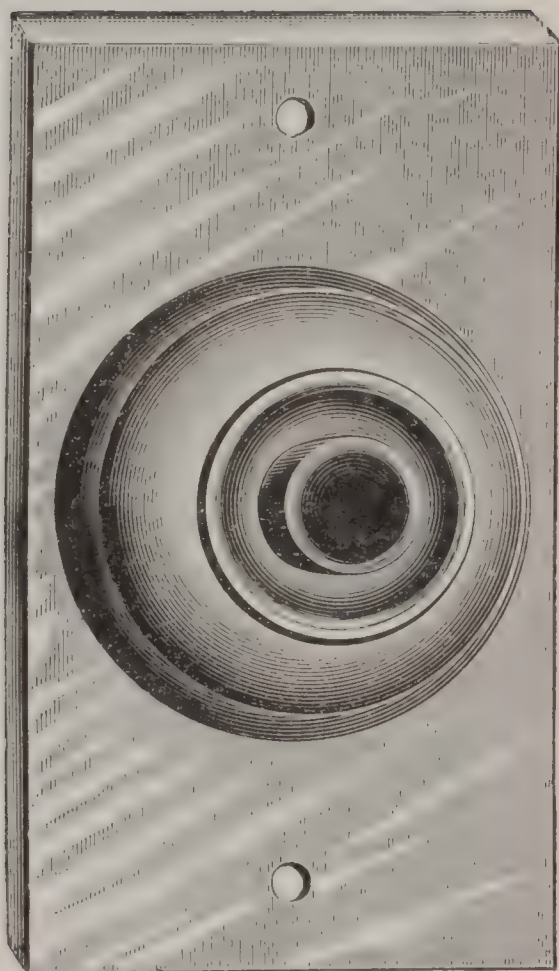
CUT FULL SIZE (SCREW CAP).

List No.		Price.
1122	(Screw Cap) Finish Nos. 1, 3, 6, 7 and 9, each.....	\$0.70
1123	(Loose Back) " " 1, 3, 6, 7 and 9, " .....	.40
1209	(Screw Cap) " " 1, 2, 6, 7 and 9, " .....	.60
1210	(Loose Back) " " 1, 2, 6, 7 and 9, " .....	.40

For Finish Nos. 4, 5, 8, 10, 11 and 12, add 10 per cent.

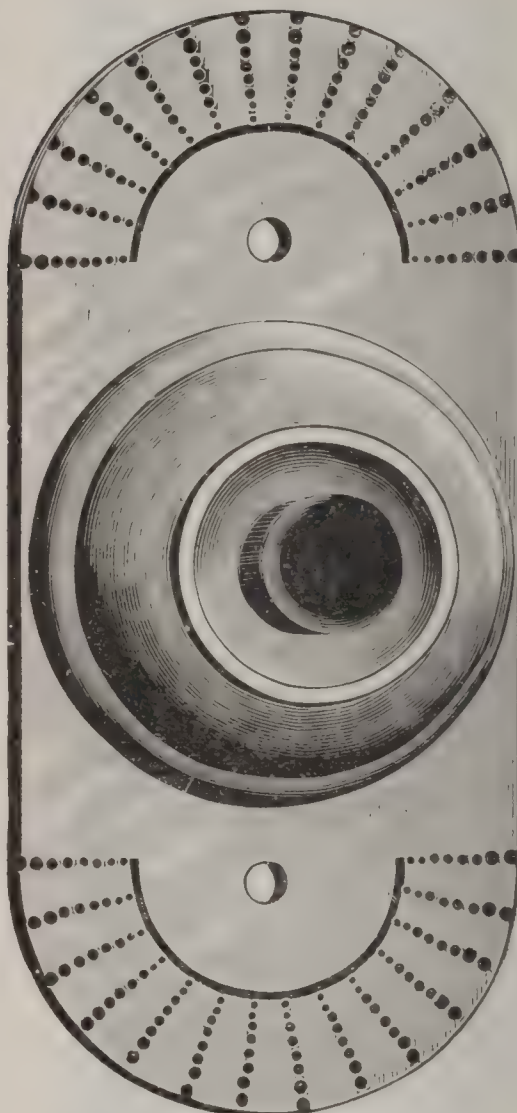
Order push buttons by number. The style of finish is designated by number. See page 78.

CAST BRONZE PUSH BUTTONS.



List No. 1211.

CUT FULL SIZE (LOOSE BACK).



List No. 1121.

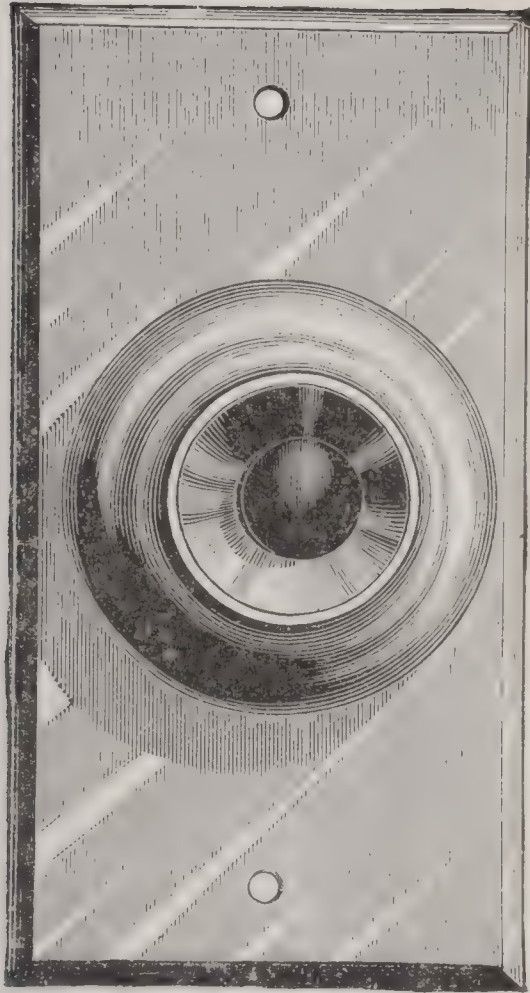
CUT FULL SIZE (LOOSE BACK.)

List No.		Price.
1211	Finish Nos. 1, 2, 6, 7 and 9, each.....	\$0.50
1121	“ “ 1, 2, 6, 7 and 9, “ .....	.50

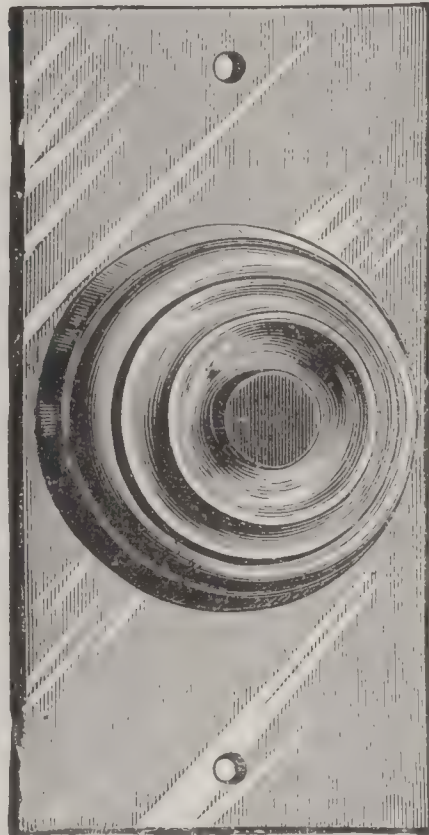
For Finish Nos. 4, 5, 8, 10, 11 and 12, add 10 per cent.

Order push buttons by number. The style of finish is designated by number. See page 78.

CAST BRONZE PUSH BUTTONS.



List No. 1213.



List No. 1214.

SIZE, $2\frac{3}{8} \times 4\frac{1}{2}$ INCHES (LOOSE BACK). SIZE, $1\frac{7}{8} \times 4$ INCHES (LOOSE BACK).

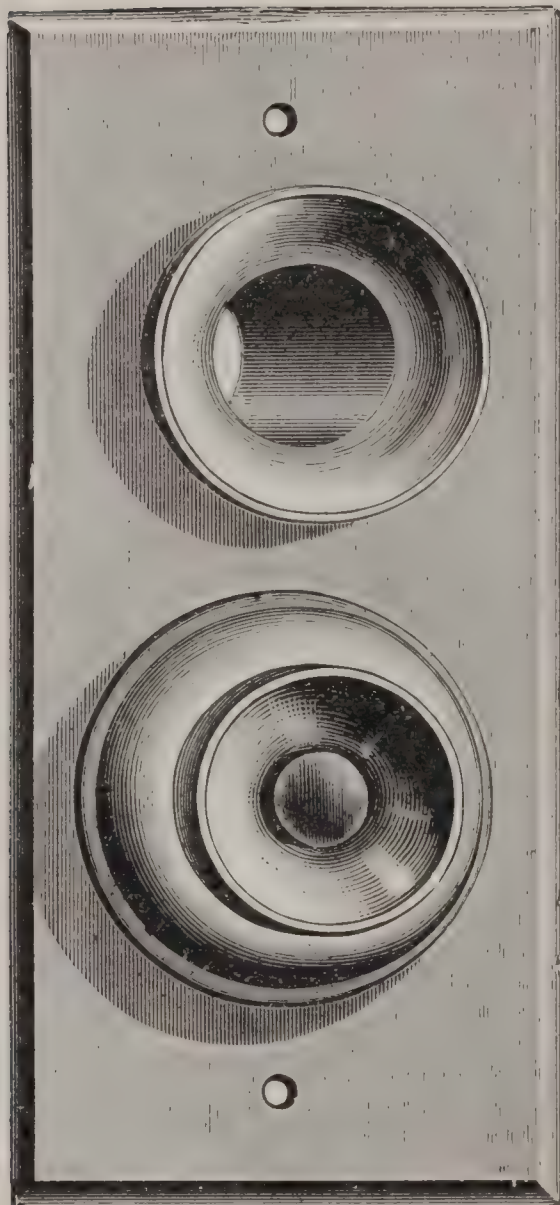
List No.		Price.
1213	(Loose Back.) Finish Nos. 1, 2, 6, 7 and 9, each.....	\$0.65
1214	" " " " 1, 2, 6, 7 and 9, " .....	.55
1215	(Screw Cap.) $4\frac{5}{8} \times 2\frac{3}{8}$ Finish Nos. 1, 2, 6, 7 and 9, each	.80
1216	" " 4x2. " " 1, 2, 6, 7 and 9, " .....	.70
1217	(Loose Back.) 5x2. " " 1, 2, 6, 7 and 9, " .....	.65

For Finish Nos. 4, 5, 8, 10, 11 and 12, add 10 per cent

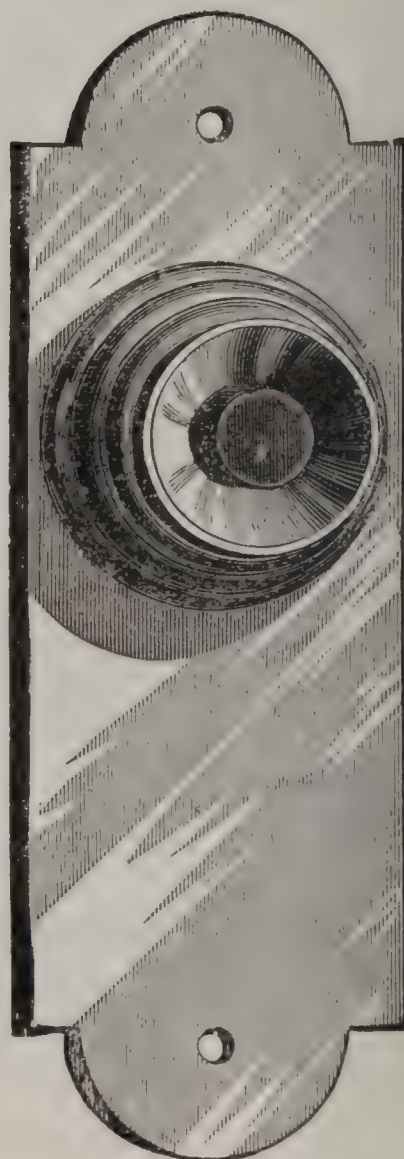
Nos. 1215, 1216 and 1217 are same design as No. 1214.

Order push buttons by number. The style of finish is designated by number. See page 78.

CAST BRONZE PUSH BUTTONS.



List No. 1218.

SIZE, $5\frac{1}{4} \times 2\frac{5}{8}$ INCHES (LOOSE BACK).

List No. 1219.

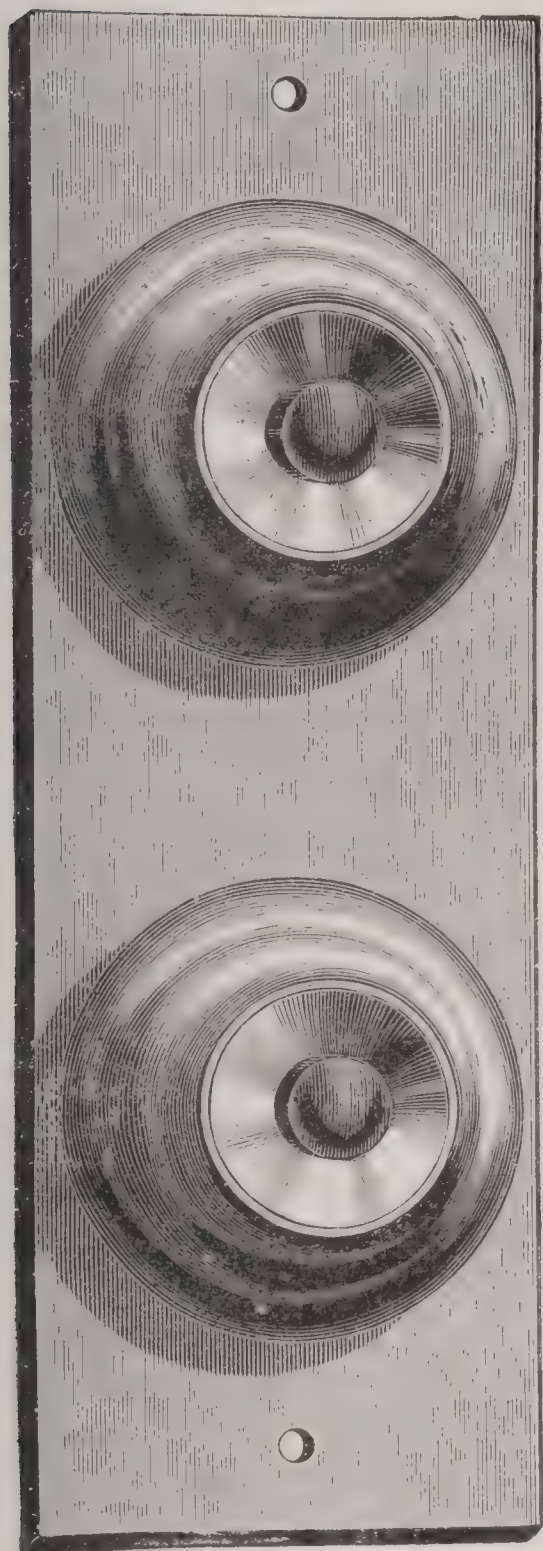
SIZE, $5\frac{1}{4} \times 1\frac{3}{4}$ INCHES (LOOSE BACK).

List No.	Price.
1218 Finish Nos. 1, 2, 6, 7 and 9, each	\$1.10
1219 " " 1, 2, 6, 7 and 9, " .....	.65

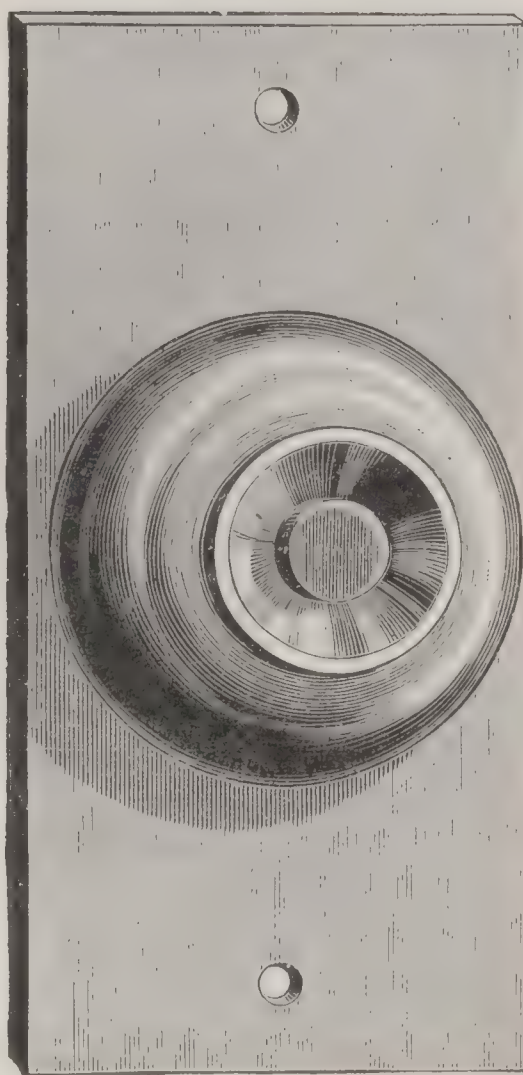
For Finish Nos. 4, 5, 8, 10, 11 and 12, add 10 per cent.

Order push buttons by number. The style of finish is designated by number. See page 78.

CAST BRONZE PUSH BUTTONS.



List No. 1221.

SIZE, $2\frac{3}{8} \times 7\frac{1}{8}$ INCHES (SCREW CAP).

List No. 1220.

SIZE, $2\frac{3}{8} \times 5$ INCHES (SCREW CAP).

We also make this pattern with 3 pushes
(List No. 1222)

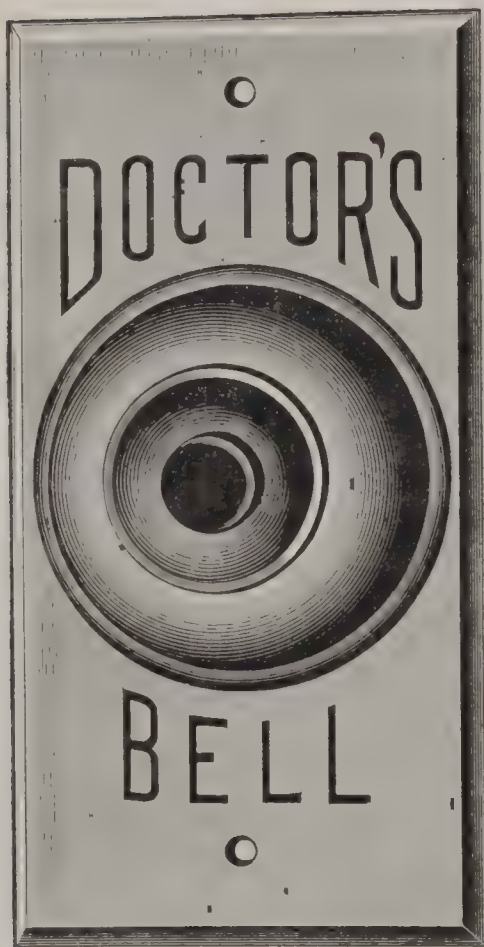
With 4 pushes (List No. 1223)

List No.		Price.
1220	Finish Nos. 1, 2, 6, 7 and 9, each.....	\$1.00
1221	“ “ 1, 2, 6, 7 and 9, “	1.60
1222	“ “ 1, 2, 6, 7 and 9, “	2.40
1223	“ “ 1, 2, 6, 7 and 9, “	3.00

For Finish Nos. 4, 5, 8, 10, 11 and 12. add 10 per cent.

Order push buttons by number. The style of finish is designated by number. See page 78.

CAST BRONZE PUSH BUTTONS.



List No. 1243.
Size, 4¼ x 2½ inches.
Loose back.



List No. 1225.
Size, 4 x 1⅞ inches.

DOCTOR'S BELL.

List No. 1243.

JANITOR'S BELL.

List No. 1244.

NIGHT BELL.

List No. 1245.

DENTIST'S BELL.

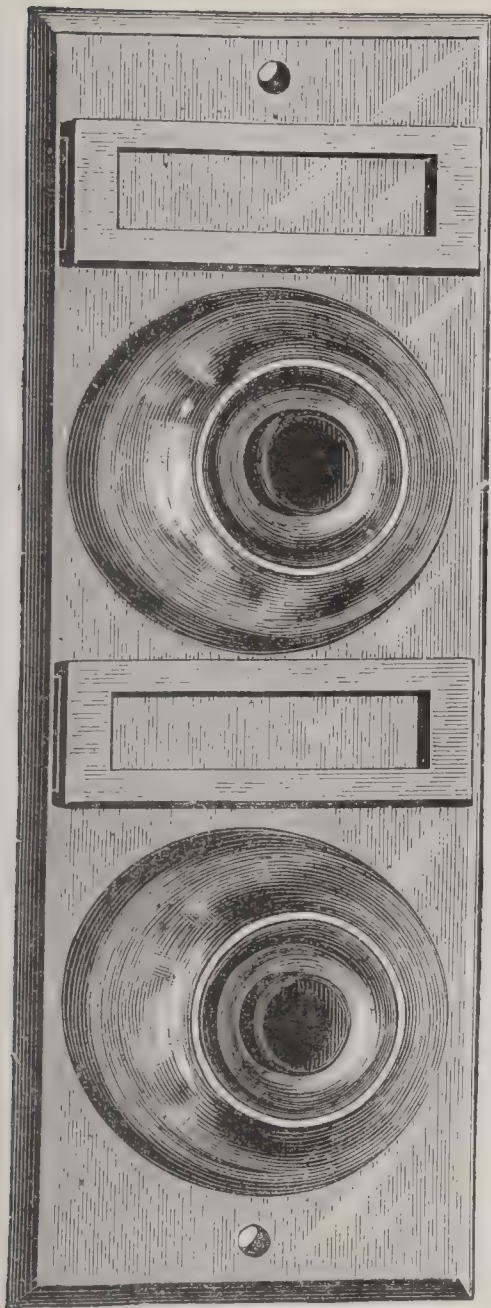
List No. 1246.

List No.		Price.
1243	Finish Nos. 1, 2, 6, 7 and 9	\$0 70
1244	" " " " "	70
1245	" " " " "	70
1246	" " " " "	70
1224	One Push, Finish Nos. 1, 2, 6, 7 and 9	50
1225	Two Pushes, " " " " "	90
1226	Three " " " " " "	1 25
1227	Four " " " " " "	1 60
1228	Five " " " " " "	1 95
1229	Extra Push Button only, same as used in 1224 to 1228 Plates.....	30

For finish Nos. 4, 5, 8, 10, 11 and 12, add 10 per cent.

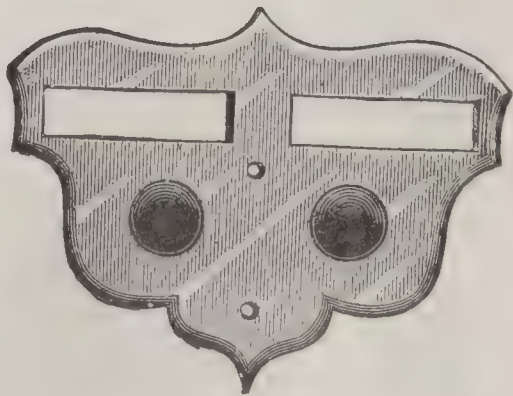
Order push buttons by number. The style of finish is designated by number. See page 78.

CAST BRONZE PUSH BUTTONS.



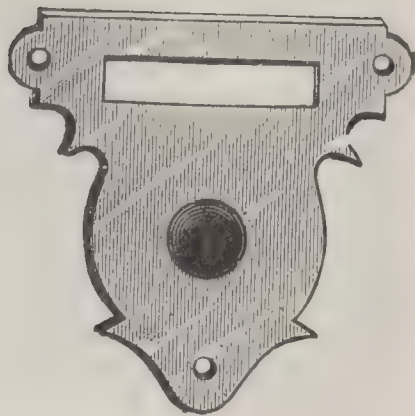
List No. 1230.

CUT $\frac{3}{4}$ SIZE (LOOSE BACK).



List No. 1384.

CUT $\frac{1}{2}$ SIZE.



List No. 1383.

CUT $\frac{1}{2}$ SIZE.

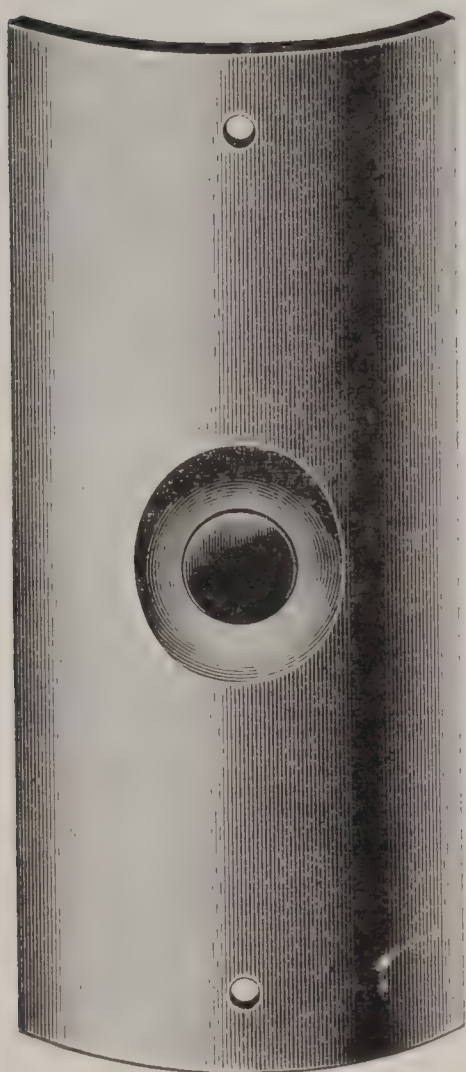
List No.		Price.
1268	(1 push) Finish Nos. 1, 2, 6, 7 and 9, each.....	\$1.00
1230	(2 pushes) " " 1, 2, 6, 7 and 9, "	1.40
1231	(3 ") " " 1, 2, 6, 7 and 9, "	1.90
1232	(4 ") " " 1, 2, 6, 7 and 9, "	2.35
1233	(5 ") " " 1, 2, 6, 7 and 9, "	2.85
1234	(6 ") " " 1, 2, 6, 7 and 9, "	3.30
1383	Finish Nos. 1, 2, 6, 7 and 9, each.....	.35
1384	" " 1, 2, 6, 7 and 9 " .....	.65

For Finish Nos. 4, 5, 8, 10, 11 and 12, add 10 per cent.

Order push buttons by number. The style of finish is designated by number. See page 78.

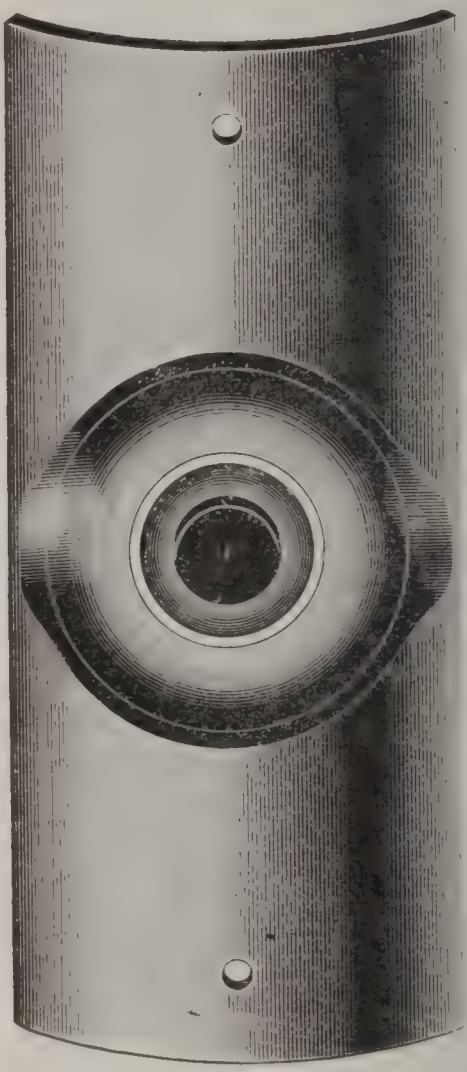
CAST BRONZE PUSH BUTTONS.

CONVEX, FOR ROUND MOULDING.



List No. 1235.

Size, 4¾ x 2⅛ inches.



List No 1236

Size, 4¾ x 2⅛ inches.

Nos. 1237, 1238 and 1239 are same design as No. 1236.

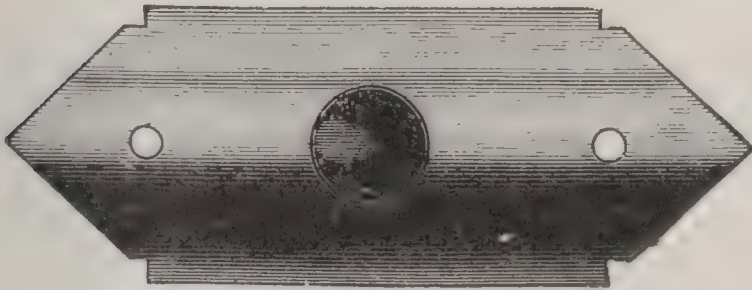
List No.										Price.
1235	Flush Push.	For 2¼-inch bead.	Finish Nos. 1, 2, 6, 7 and 9	-----						\$0 80
1236	Screw Cap.	" " " " " " " " " "		-----						1 00
1237	" "	4 x 2 inches.	For 3¾-inch bead.	Finish Nos. 1, 2, 6, 7 and 9	--					95
1238	" "	4 x 1¾ inches.	For 1⅝-inch bead.	" " " " " "	--					90
1239	" "	4¾ x 2¼ inches.	For 2½-inch bead.	" " " " " "	--					1 00

For finish Nos. 4, 5, 8, 10, 11 and 12, add 10 per cent.

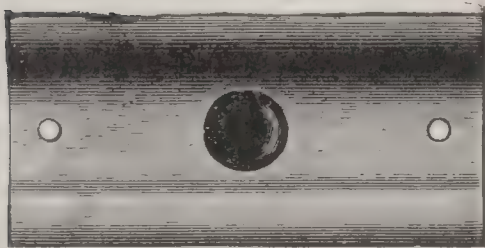
Order push buttons by number. The style of finish is designated by number. See page 78.

CAST BRONZE PUSH BUTTONS.

CONVEX, FOR ROUND MOULDING, 2 INCH BEAD.



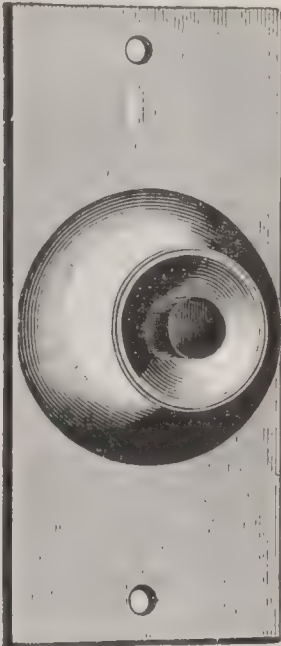
List No. 1240.
SIZE, $3\frac{3}{8} \times 1\frac{3}{8}$ INCHES.



List No. 1241.
SIZE, $3 \times 1\frac{1}{2}$ INCHES.



List No. 1124.
SIZE, $3\frac{3}{8} \times 1\frac{3}{8}$ INCHES.



List No. 1242.
SIZE, $3 \times 1\frac{1}{2}$ IN. (SCREW CAP).
FLAT.

List No.							Price.
1240	(Convex)	Finish Nos.	1, 2, 6, 7 and 9, each	.....			\$0.45
1241	"	"	" 1, 2, 6, 7 and 9, "	.....	*		.45
1124	"	"	" 1, 3, 6, 7 and 9, "	.....			.45
1242	(Screw Cap.)	"	" 1, 2, 6, 7 and 9, "	.....			.50
1247	(Flat.)	Same design as No. 1240.	Finish Nos. 1, 2, 6, 7 and 9, each				.45
1248	"	"	" 1241. " " 1, 2, 6, 7 and 9, "				.45
1126	"	"	" 1124. " " 1, 2, 6, 7 and 9, "				.45

For Finish Nos. 4, 5, 8, 10, 11 and 12, add 10 per cent.

Order push buttons by number. The style of finish is designated by number. See page 78.

CAST BRONZE PUSH BUTTONS.



List No. 1302.

SCREW CAP.

Diameter, $2\frac{3}{8}$ inches.

List No.	Price
1302 Finish Nos. 1, 3, 6, 7 and 9, each	\$0.60
For Finish Nos. 4, 5, 8, 10, 11 and 12,	add 10 per cent.



List No. 1304.

SCREW CAP.

Diameter, $2\frac{7}{8}$ inches.

List No.	Price.
1304 Finish Nos. 1, 3, 6, 7 and 9, each	\$0.65
For Finish Nos. 4, 5, 8, 10, 11 and 12,	add 10 per cent.



List No. 1305.

SCREW CAP.

Diameter, $2\frac{1}{2}$ inches.

List No.	Price.
1305 Finish Nos. 1, 2, 6, 7 and 9, each	\$0.65
For Finish Nos. 4, 5, 8, 10, 11 and 12,	add 10 per cent.



List No. 1306 and 1307.

SCREW CAP.

Diameter. $2\frac{3}{8}$ inches.

List No.	Price.
1306 Finish Nos. 1, 2, 6, 7 and 9, each	\$0.55
Diameter, $2\frac{5}{8}$ inches	
1307 Finish Nos. 1, 2, 6, 7 and 9, each	.60
For Finish Nos. 4, 5, 8, 10, 11 and 12,	add 10 per cent.



List No. 1313.

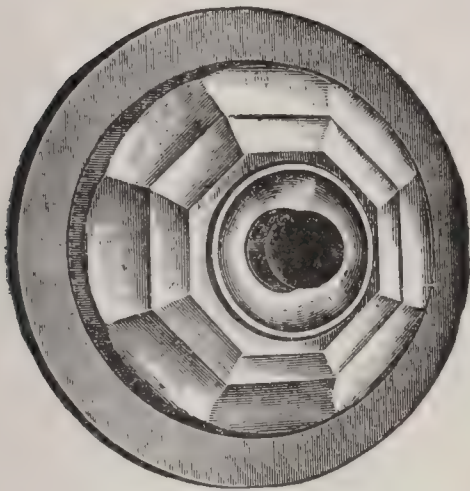
SCREW CAP.

Diameter, $1\frac{5}{8}$ inches.

List No.	Price.
1313 Finish Nos. 1, 2, 6, 7 and 9, each	\$0.40
For Finish Nos. 4, 5, 8, 10, 11 and 12,	add 10 per cent.

For description of Special Finishes see page 78.

CAST BRONZE PUSH BUTTONS.



List No. 1310.

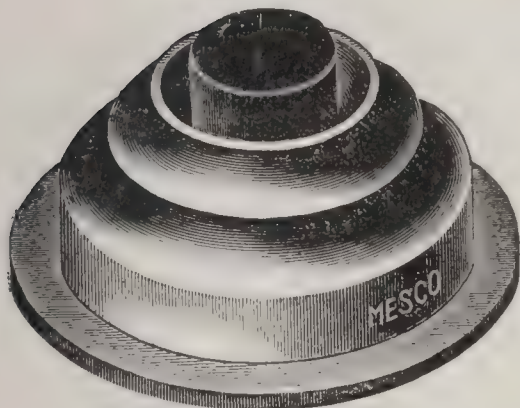
SCREW CAP.

Diameter, 2 1/8 inches.

List No.

Price.

- 1310 Finish Nos. 1, 2, 6, 7 and 9, each..\$0.60
For Finish Nos. 4, 5, 8, 10, 11 and 12,
add 10 per cent.



List No. 1311.

SCREW CAP.

Diameter, 1 5/8 inches.

List No.

Price.

- 1311 Finish Nos. 1, 2, 6, 7 and 9, each..\$0.40
For Finish Nos. 4, 5, 8, 10, 11 and 12,
add 10 per cent.



List No. 1312.

SCREW CAP.

Diameter, 1 1/2 inches.

List No.

Price.

- 1312 Finish Nos. 1, 2, 6, 7 and 9, each..\$0.40
For Finish Nos. 4, 5, 8, 10, 11 and 12,
add 10 per cent.



List No. 1361.

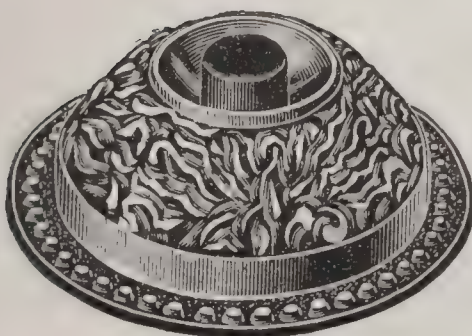
SCREW CAP.

Diameter, 2 3/8 inches.

List No.

Price.

- 1361 Finish Nos. 1, 3, 6, 7 and 9, each..\$0.65
For Finish Nos. 4, 5, 8, 10, 11 and 12,
add 10 per cent.



List No. 1362.

SCREW CAP.

Diameter, 2 3/8 inches.

List No.

Price.

- 1362 Finish Nos. 1, 3, 6, 7 and 9, each..\$0.65
For Finish Nos. 4, 5, 8, 10, 11 and 12,
add 10 per cent.

For description of Special Finishes see page 78.

CAST BRONZE PUSH BUTTONS.



List No. 1301.

LOOSE BACK.

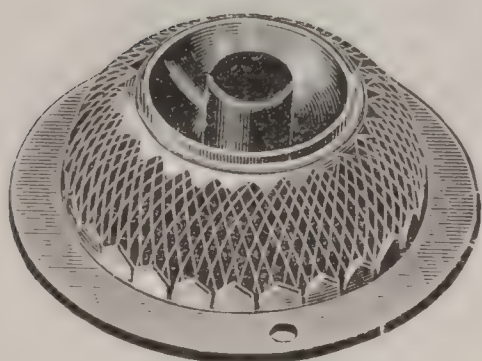
Diameter, $2\frac{3}{4}$ inches.

List No.

Price.

1301 Finish Nos. 1, 3, 6, 7 and 9, each..\$0.45

For Finish Nos. 4, 5, 8, 10, 11 and 12,
add 10 per cent.



List No. 1303.

LOOSE BACK.

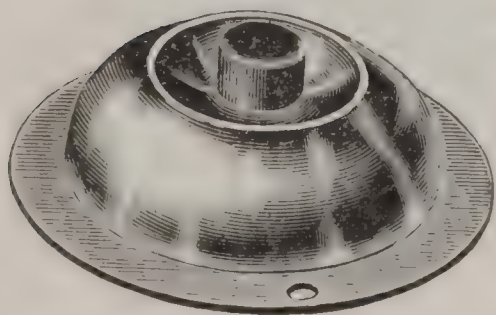
Diameter, $2\frac{3}{8}$ inches.

List No.

Price.

1303 Finish Nos. 1, 3, 6, 7 and 9, each..\$0.40

For Finish Nos. 4, 5, 8, 10, 11 and 12,
add 10 per cent.



List No. 1308.

LOOSE BACK.

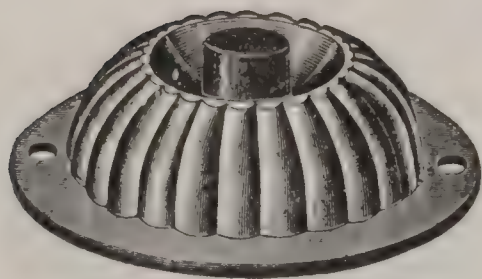
Diameter, $2\frac{5}{8}$ inches.

List No.

Price.

1308 Finish Nos. 1, 2, 6, 7 and 9, each..\$0.35

For Finish Nos. 4, 5, 8, 10, 11 and 12,
add 10 per cent.



List No. 1309.

LOOSE BACK.

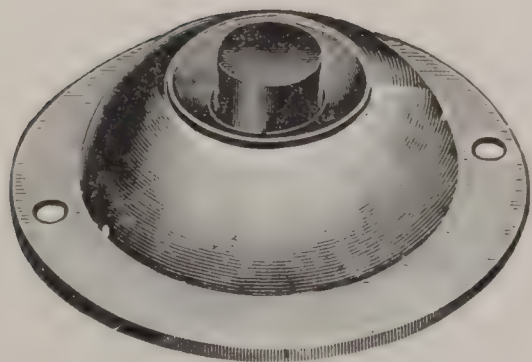
Diameter, $2\frac{1}{4}$ inches.

List No.

Price.

1309 Finish Nos. 1, 2, 6, 7 and 9, each..\$0.50

For Finish Nos. 4, 5, 8, 10, 11 and 12,
add 10 per cent.



List No. 1315.

LOOSE BACK.

Diameter, $1\frac{3}{4}$ inches.

List No.

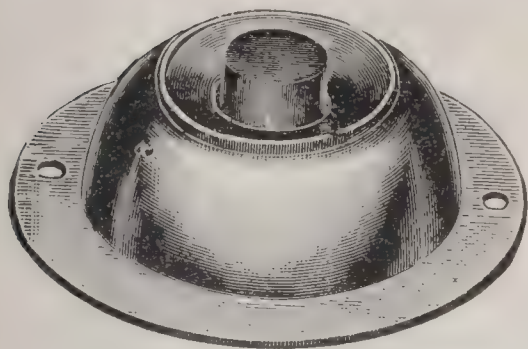
Price.

1315 Finish Nos. 1, 2, 6, 7 and 9, each..\$0.30

For Finish Nos. 4, 5, 8, 10, 11 and 12,
add 10 per cent.

For description of Special Finishes see page 78.

CAST BRONZE PUSH BUTTONS.



List No. 1316.

LOOSE BACK.

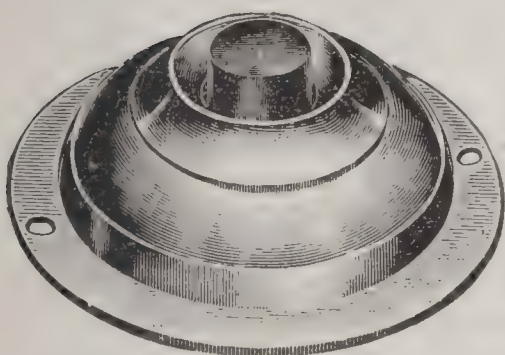
Diameter, $2\frac{3}{8}$ inches.

List No.

Price.

1316 Finish Nos. 1, 2, 6, 7 and 9, each..\$0.30

For Finish Nos. 4, 5, 8, 10, 11 and 12,
add 10 per cent.



List No. 1317.

LOOSE BACK.

Diameter $2\frac{1}{4}$ inches.

List No.

Price.

1317 Finish Nos. 1, 2, 6, 7 and 9, each..\$0.30

For Finish Nos. 4, 5, 8, 10, 11 and 12,
add 10 per cent.



List No. 1319.

LOOSE BACK.

Diameter $2\frac{1}{4}$ inches.

List No.

Price.

1319 Finish Nos. 1, 3, 6, 7 and 9, each..\$0.30

For Finish Nos. 4, 5, 8, 10, 11 and 12,
add 10 per cent.



List No. 1320.

LOOSE BACK.

Diameter $2\frac{1}{4}$ inches.

List No.

Price.

1320 Finish Nos. 1, 3, 6, 7 and 9, each..\$0.30

For Finish Nos. 4, 5, 8, 10, 11 and 12,
add 10 per cent.



List No. 1321.

LOOSE BACK.

Diameter $2\frac{1}{2}$ inches.

List No.

Price.

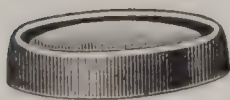
1321 Finish Nos. 1, 3, 6, 7 and 9, each..\$0.30

For Finish Nos. 4, 5, 8, 10, 11 and 12,
add 10 per cent.

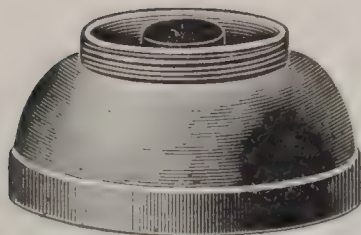
For description of Special Finishes see page 78.

IMPROVED WATER-TIGHT PUSH BUTTON.

PATENTED JUNE 18, 1895.



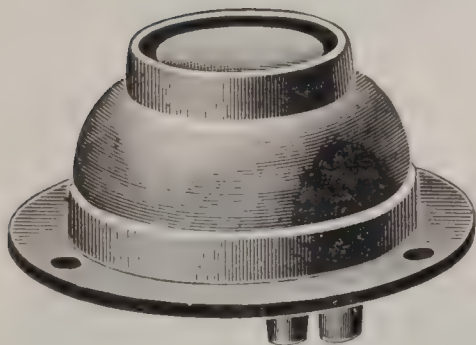
CAP.



SHELL.

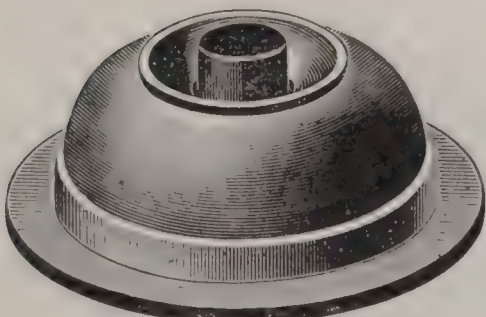


RING.



COMPLETE.

Size, 2½ inches in diameter.



List No. 1382.

One of the greatest obstacles in the electrical call system on vessels, in cold-storage warehouses, etc., has been the water and dampness penetrating the Push Buttons, thereby corroding the contacts and making the system inoperative. This has been overcome with the push as shown by accompanying illustration. The button is made of cast bronze in three parts: a ring, shell and cap. The cap, which is screwed on, is provided with a pure gum disc, which, being elastic, will give when pressing button and prevent the water from getting in the inside of shell. The ring is provided with two lugs to connect soft rubber tubing to cover the connecting wires; the back is hard rubber; springs, German Silver with heavy pure platinum contacts. This makes a perfect water-tight Push, reliable in every respect; they are being used extensively on government vessels, in vaults, ice houses, etc.

List No.	Price.
1375 W-T Push with Platinum Contacts	\$2 00
1376 " " without " "	1 80

NAVY STANDARD.

1374 W-T Push with Platinum Contacts and wired with Rubber Covered Wire 16 inches in length.....	2 50
--	------

Furnished in finish Nos. 1 to 12 inclusive, without extra charge.

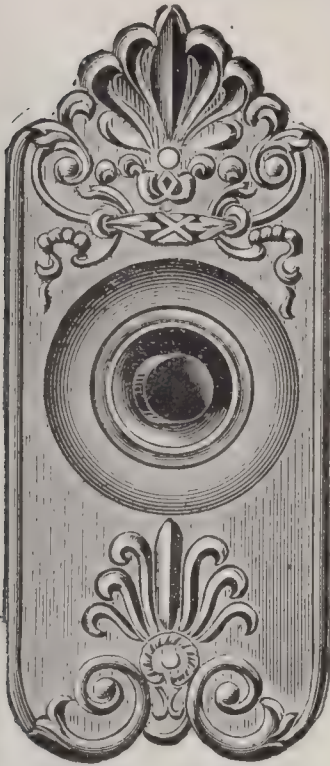
NAVY STANDARD NON-WATER TIGHT PUSH BUTTON.

Screw Cap.
Diameter, 2½ inches.
Heavy Platinum Contact.

List No.	Price.
1382 N-W-T Push, finish No. 1.....	\$1 00

The above Push Buttons furnished in Navy Standard Black Oxidized Finish for 10 per cent extra.

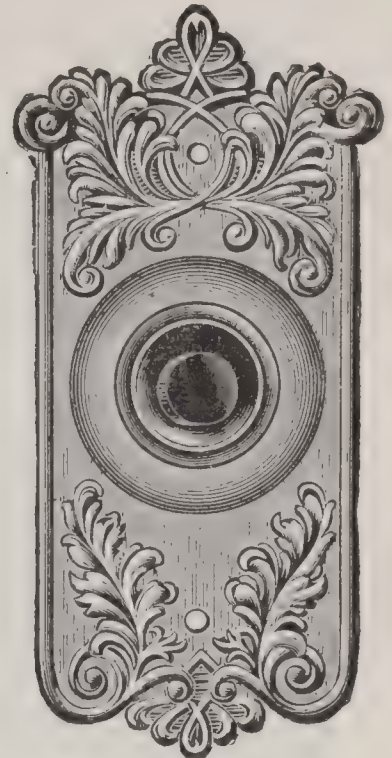
STAMPED METAL PUSH BUTTONS.



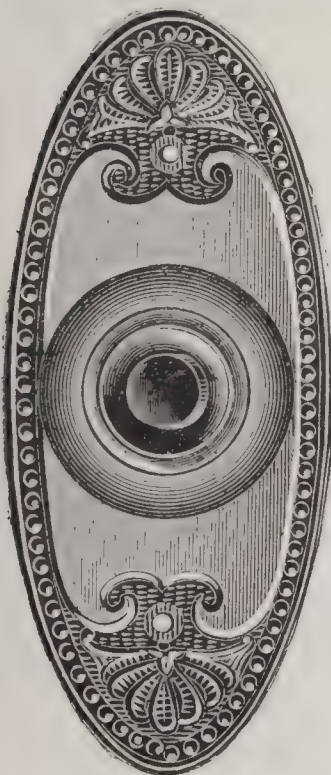
List No. 1272.
SIZE, $4\frac{5}{8} \times 2$ INCHES.



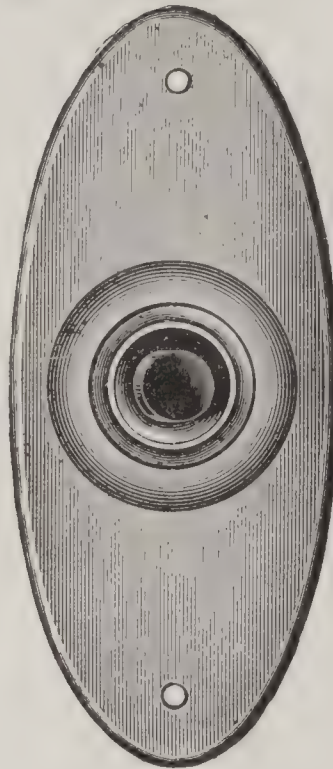
List No. 1273.
SIZE, 4×2 INCHES.



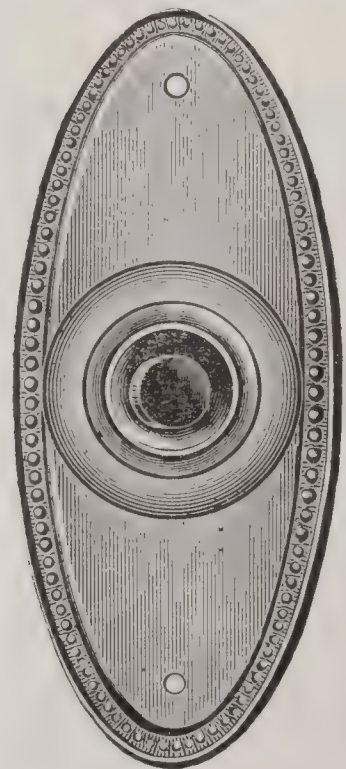
List No. 1274.
SIZE, $4\frac{5}{8} \times 2$ INCHES.



List No. 1275.
SIZE, $4\frac{5}{8} \times 2$ INCHES.



List No. 1276.
SIZE, $4\frac{5}{8} \times 2$ INCHES.



List No. 1277.
SIZE, $4\frac{5}{8} \times 2$ INCHES.

List No.	Finish	Nos.		Price.
1272		Nos. 1, 7, 8 and 11, each	.....	\$0.40
1273	"	" 1, 7, 8 and 11, "	.....	.40
1274	"	" 1, 7, 8 and 11, "	.....	.40
1275	"	" 1, 7, 8 and 11, "	.....	.40
1276	"	" 1, 7, 8 and 11, "	.....	.40
1277	"	" 1, 7, 8 and 11, "	.....	.40

For description of finishes see page 78.

These pushes have loose backs, are well made and highly polished.

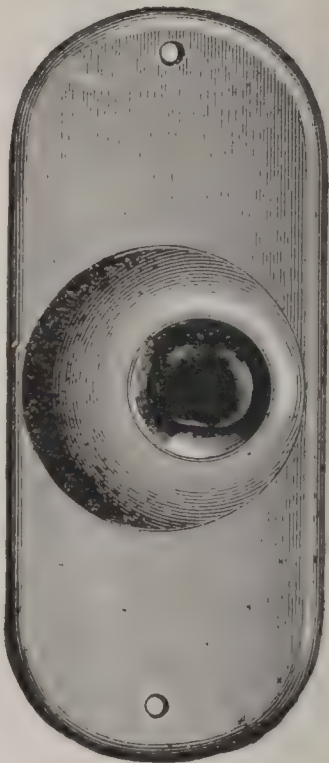
STAMPED METAL PUSH BUTTONS.



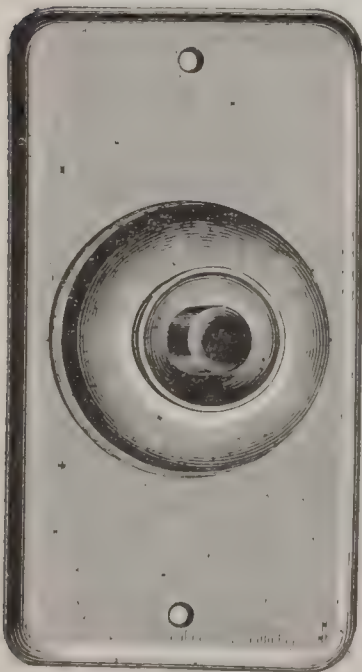
List No. 1391.
SIZE, 4¾ x 2 INCHES.



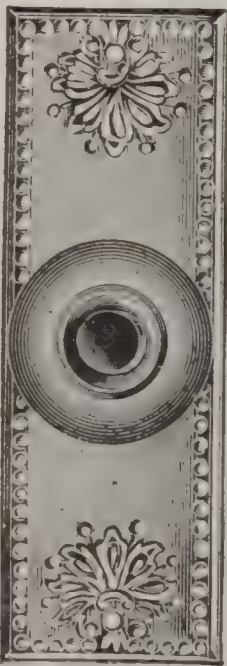
List No. 1392.
SIZE, 4 x 2 INCHES.



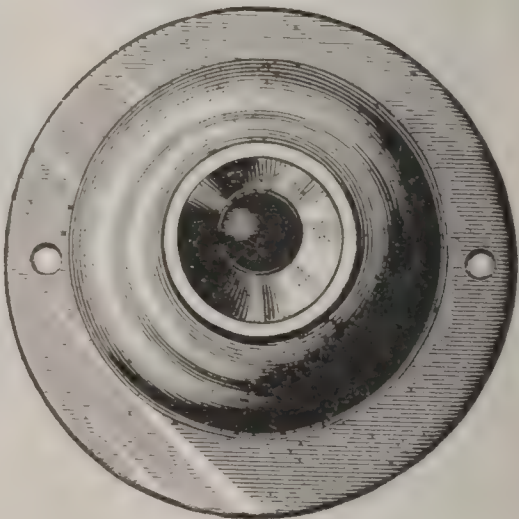
List No. 1393.
SIZE, 4¾ x 2 INCHES.



List No. 1394.
SIZE, 4 x 2 INCHES.



List No. 1385.
SIZE, 4½ x 1½ INCHES.



List No. 1395.
SIZE, 2⅜ INCHES.

List No.					Price
1391	Finish Nos. 1, 7, 8 and 11, each	.....	.....	.....	\$0.38
1392	“ “ “ “	.....	.....	.....	.38
1393	“ “ “ “	.....	.....	.....	.38
1394	“ “ “ “	.....	.....	.....	.38
1395	“ “ “ “	.....	.....	.....	.18
1385	“ “ “ “	.....	.....	.....	.40

For description of finishes see page 78.

These pushes have loose backs, are well made and highly polished.

FANCY METAL PUSHES.

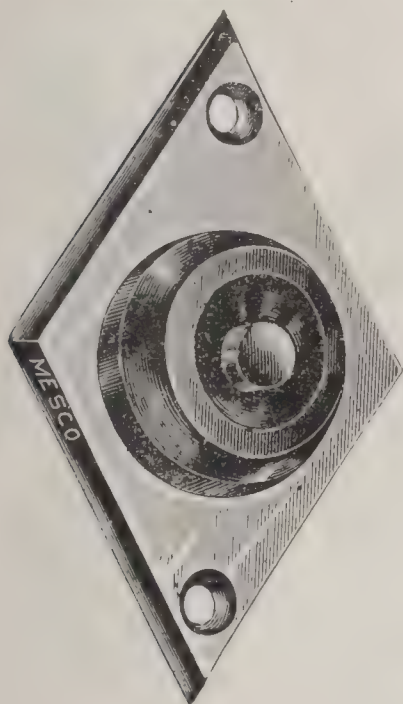


ART METAL PUSH.

Size, $2\frac{1}{8}$ inches diameter.

A very nice pattern and a good seller. Made in the following finishes: 1, 2, 6, 7 and 9.

List No.	Price.
1352 Push, complete.....	\$0 70

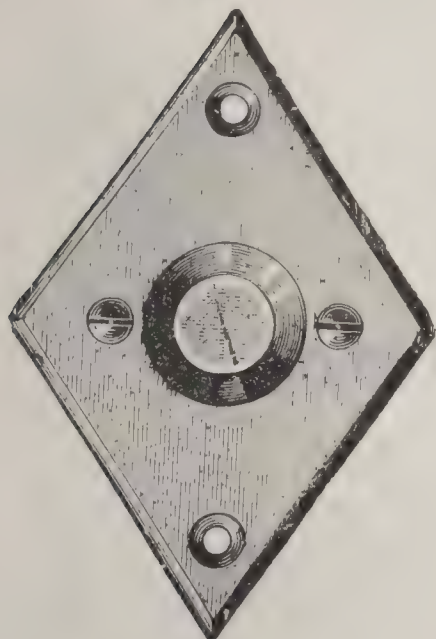


DIAMOND SHAPE PUSH WITH MIDGET CENTRE.

This is a Bronze Plate with Hard Rubber Midget Push. A very durable button.

Size, 3 x 2 inches.

List No.	Price.
1356 Push, complete.....	\$0 60
Finish No. 1 or 2.	

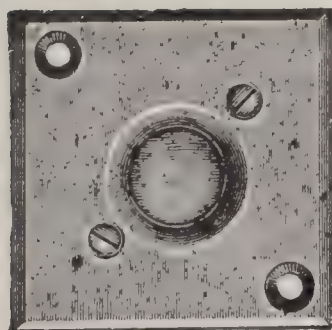


DIAMOND SHAPE PUSH WITH PEARL CENTRE.

This Push is very ornamental and is a favorite with the trade.

Size, 3 x 2 inches.

List No.	Price.
1360 Push, complete.....	\$0 50
Finish No. 1 or 2	



SQUARE SHAPE PUSH WITH PEARL CENTRE.

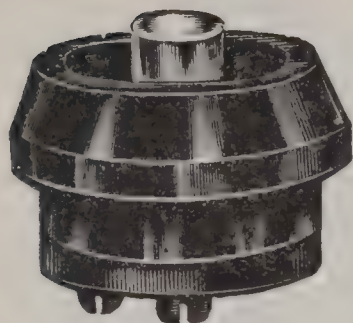
A neat design.

Size, $1\frac{7}{8}$ x $1\frac{7}{8}$ inches.

List No.	Price.
1355 Push, complete.....	\$0 45
Finish No. 1 or 2.	

Always give number of finish wanted when ordering.

FANCY METAL PUSHES.



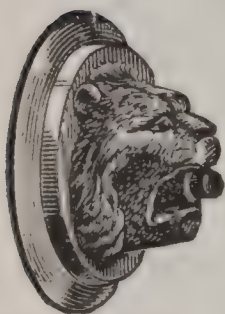
List No. 1354.

RUBBER OR WOOD MIDGET.

This Push is made in both wood and hard rubber and is adapted for use in metal plates as it will not short circuit.

Size, $\frac{3}{4}$ inch diameter.

List No.	Price.
1353 Wood Midget.....	\$0 18
1354 Rubber ".....	40



List No. 1358

TIGER HEAD PUSH.

A finely modeled Tiger Head in cast bronze.

Size, $2\frac{3}{4}$ inches diameter.

Loose back.

List No.	Price.
1358 Tiger Push.....	\$1 05



List No. 1359.

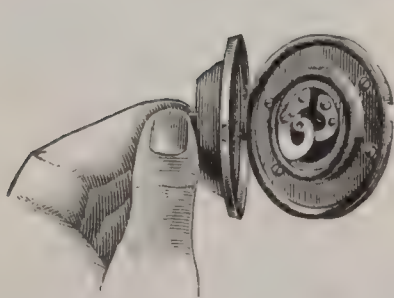
LION HEAD PUSH.

A handsome Push of cast bronze.

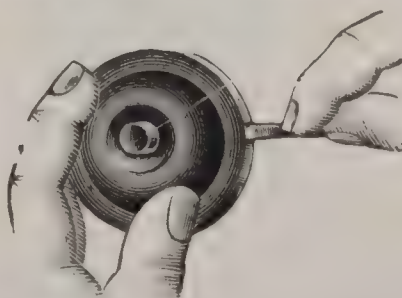
Size, $3\frac{3}{8} \times 4\frac{1}{2}$ inches.

List No.	Price.
1359 Lion Push.....	\$1 30

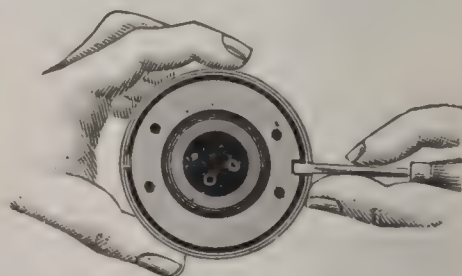
ANTI-WOOD PUSH BUTTON.



PLACING CAP OVER BASE.



REMOVING THE CAP; PRY UNDER THE NOTCH, PROTECT WALL WHILE DOING SO.



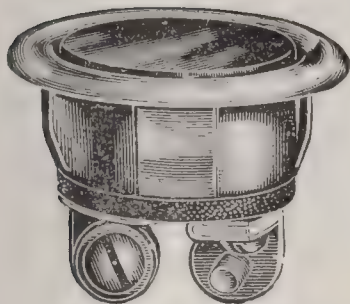
REMOVING THE BASE.

The Anti-Wood Push Button has no screws to mar its appearance, and overcomes some objectional features in wood pushes, such as cracking, warping and swelling. Can be installed in less time than any other and can not be tampered with.

List No.	Price.
1287 Red Bronze Plated.....	Per 100, \$7 00
1288 Polished Bronze Plated.....	" 9 00
1289 Antique Copper Plated.....	" 9 00

SMALL DESK PUSH BUTTONS.

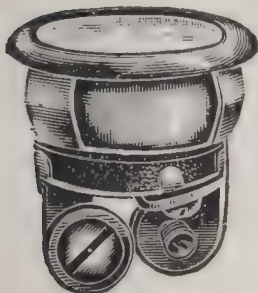
ILLUSTRATIONS FULL SIZE.



List No. 1332.

This Push fits into a 3/4-inch hole and is securely held by springs at the side. Centre cannot turn around, and when engraved keeps in the right position. Centres furnished in black or white; trimmings bronze and nickel-plated.

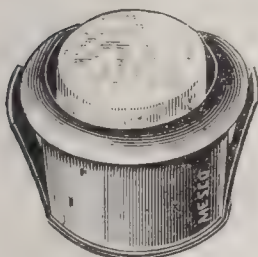
List No.	Price.
1332	\$0 40



List No. 1333.

This Push fits into a 5/8-inch hole, in other respects is same as above, has light or dark pearl centre.

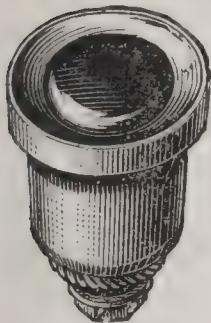
List No.	Price.
1333	\$0 43



List No. 1334.

This Push fits into a 5/8-inch hole and has nickel rim with light and dark pearl centre. Also made with black and white composition centre. A reliable, neat and well-made push.

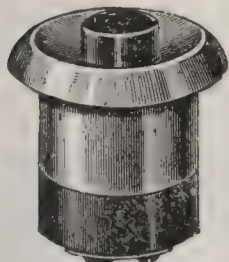
List No.	Price.
1330 White Rubber Composition Centre	\$0 10
1331 Black " " "	10
1334 Light or Dark Pearl Centre	14



List No. 1338.

This Push is made to fit in a 1/2-inch hole and is connected by attaching one wire to nut on back and the other to the barrel.

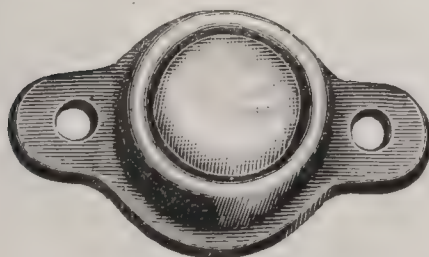
List No.	Price.
1338	\$0 20



List No. 1339.

This Push fits in a 1/2-inch hole, has black centre, brass or nickel rim.

List No.	Price.
1339	\$0 15



List No. 1280.

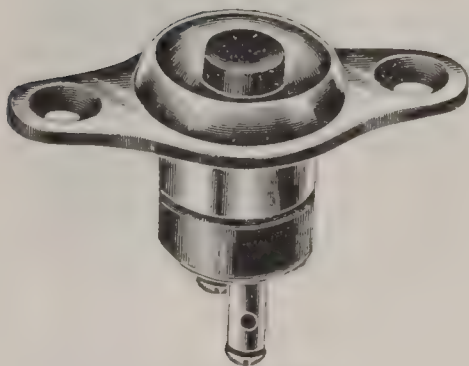
EW TYPE FLUSH DESK OR CAR PUSH.

The New Type Flush Push requires no hole except one for the wire. Size, 1 3/8 x 7/8 inches. Pearl centre with bronze or nickel rim.

List No.	Price.
1280 Flush Push	\$0 15
New Type with binding-post requires 1/2-inch hole.	
Flush Push	20

SMALL DESK PUSH BUTTONS.

ILLUSTRATIONS FULL SIZE.

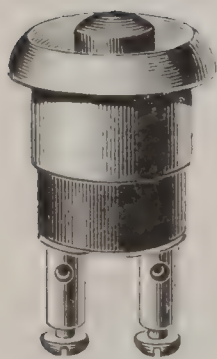


List No. 1335.

CAR AND ELEVATOR PUSH.

Fits 1/2-inch hole, has nickel rim with black centre and is made with or without binding posts.

List No.	Price.
1335 With Binding Posts.....	\$0 25
1336 Without " "	20



List No. 1337.

DESK PUSH.

This Push is same type as above. Fits 1/4-inch hole, has nickel rim, black centre. Made with binding posts.

List No.	Price.
1337	\$0 20



List No. 1130.

NOSCRU MIDGET PUSH BUTTONS.

The Noscru Push Buttons can be connected in ten seconds, skin the wires, thread them through the horizontal holes near bottom of button, bend them over (which locks them firmly in position) and the button is connected. No exposed contact parts. Unaffected by dampness.

NOSCRU SR. PUSH BUTTON.

Fits 3/4-inch hole, with polished brass, polished bronze or nickel-plated rim.

List No.	Price.
1130 Black Celluloid Centres	\$0 25
1131 White " "	25
1132 Pearl " "	35



List No. 1133

NOSCRU JR. PUSH BUTTON.

Fits 5/8-inch hole, with polished brass, polished bronze or nickel-plated rim.

List No.	Price.
1133 Black Celluloid Centres.....	\$0 25
1134 White " "	25
1135 Pearl " "	25



List No. 1136.

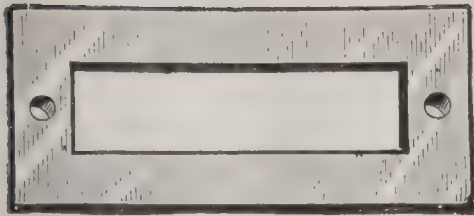
NOSCRU PEE WEE PUSH BUTTON.

Fits 3/8-inch hole, finishes same as above.

List No.	Price.
1136 Black Pearl Centres.....	\$0 25
1137 White " "	25

Centres are readily removable for engraving.

CAST BRONZE NAME PLATES.

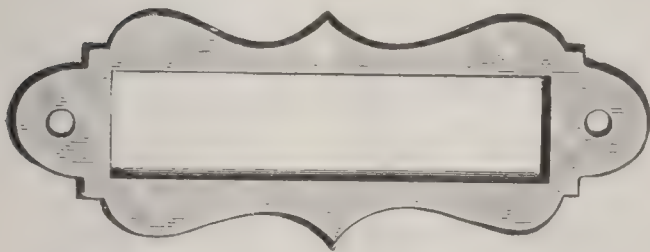


List No. 1388.

SMALL NAME PLATE.

Cast Bronze.
Size, 1 x 2 $\frac{3}{8}$ -inches.

List No.		Price.
1388	Finish Nos. 1, 2, 6, 7 and 9.....	\$0 15

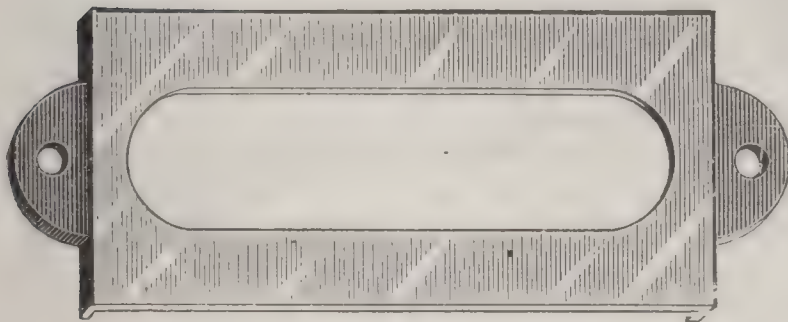


List No. 1387.

MEDIUM NAME PLATE.

Cast Bronze.
Size, 1 x 3 inches.

List No.		Price.
1387	Finish Nos. 1, 2, 6, 7 and 9.....	\$0 20



List No. 1389.

LARGE NAME PLATE.

Cast Bronze.
Size, 1 $\frac{3}{4}$ x 3 $\frac{1}{2}$ -inches.

List No.		Price.
1389	Finish Nos. 1, 2, 6, 7 and 9..	\$0 25

For finish Nos. 4, 5, 8, 10, 11 and 12 on any of the above add 10 per cent.

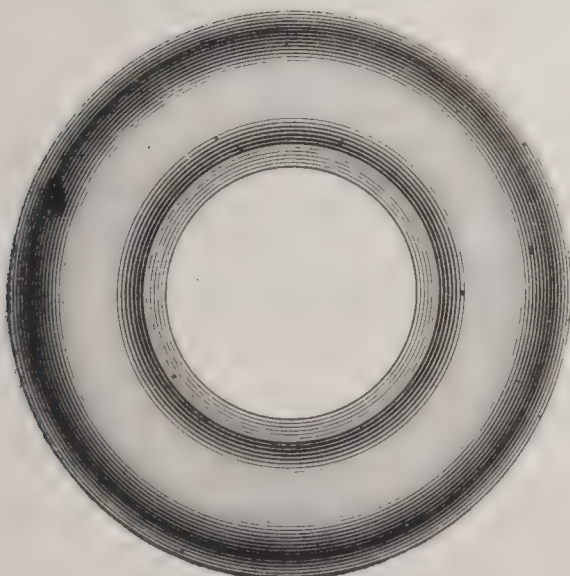


Cut Full Size.

CAST LETTER NAME PLATES.

Made in two styles, curved and straight. We carry in stock the following list. 1st to 11th floor inclusive. 1st to 6th Flat inclusive. Office, Parlor, Basement, Bath Room. Janitor and Night Bell.

List No.		Price.
1322	Straight Name Plate.....	\$0 15
1323	Curved " "	15



METAL FLANCES.

For use with Nos. 1330, 1331, 1332, 1333 or 1334 pushes on plastered walls, etc.

A perforated iron plate is furnished which is screwed to the wall, and the finished flange is placed over it. The springs on side of button press against the inside of openings and hold the flange in place. Outside flange finished in Nickel or Bronze.

List No.		Price.
1372	Flange and Inside Plate, for $\frac{5}{8}$ -inch Push,	\$0 15
1373	" " " " " $\frac{3}{4}$ " "	15

PUSH BUTTON SUNDRIES.



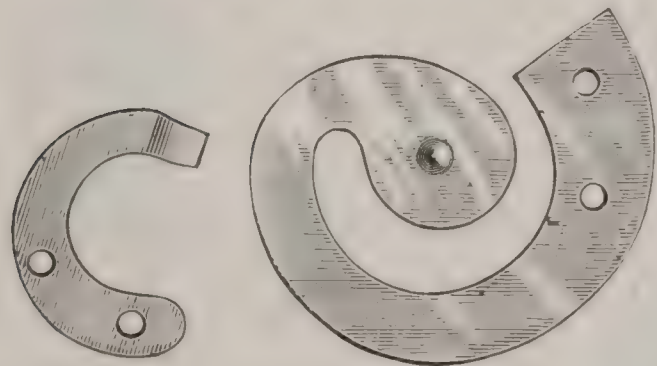
List No. 1325.

NUMBER PLATES.

This plate is for use with Nos. 1332, 1333 or 1334 Pushes. The Push fits in hole and holds plate in place.

A very neat way of designating buttons.

List No.		Price.
1324	Plate for 5/8-inch Push.....	\$0 05
1325	“ “ 3/4 “ “	05
	Stamping extra per letter.....	03



Cut Full Size.

PUSH BUTTON SPRINGS.

Made of Spring Brass and in two sizes.

Large size to fit 1 3/4-inch and larger.

Small size to fit from 1 inch to 1 5/8 inch.

List No.		Price.
1351	Large, per 100 pair.....	\$5 00
1357	Small, “ “ “	4 50
	Special price for quantities.	

FIBRE BACKS FOR METAL PUSHES.

Complete with Screws and Springs.

List No.		Price.	List No.		Price.
1290	2 3/8-inch Diam., per 100	\$15 00	1293	1 3/8-inch Diam., per 100.....	\$13 00
1291	1 3/4 “ “ “ “	14 00	1294	1 1/4 “ “ “ “	12 00
1292	1 5/8 “ “ “ “	14 00	1295	1 “ “ “ “	10 00

PUSH BUTTON CENTRES.

For Wood and Metal Pushes.

List No.		Price.
1296	Large Black Fibre for Metal Pushes, per 100.....	\$1 50
1297	Small “ “ “ “ “ “	1 00
1298	Large Hard Rubber for Metal Pushes, per 100.....	3 00
1299	Large Porcelain for Wood Pushes “ “	1 50



METAL NUMBERS.

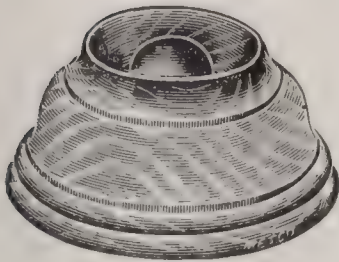
Cast Bronze with Lugs on Back.

List No.		Price
1326	1 1/2-inch Bronze.....	\$0 05
1327	1 “ “	06
1328	1 1/2 “ “	07
1329	2 “ “	10

Special Finishes to Order.

WOOD PUSH BUTTONS.

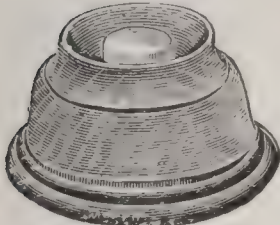
These Buttons are full size and nicely finished and have German Silver Springs.



Cut Half Size.

List No.		Price.
1341	Walnut.....	\$0 15
1343	Ash.....	15
1344	Stained Cherry.....	15
1345	Antique Oak.....	15
1346	Oak.....	15
1347	Mahogany.....	15

MEDIUM SIZE WOOD PUSH BUTTONS.

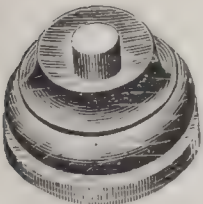


Cut Half Size.

List No.		Price.
1396	Walnut.....	\$0 15
1397	Oak.....	15
1398	Ash.....	15
1399	Stained Cherry.....	15

SMALL WOOD PUSH BUTTON.

This is a very neat button, highly polished, with White Bone Centre and German Silver Springs. Made in Ash or Walnut.



List No.		Price.
1371	Assorted Woods.....	\$0 17

MIDGET WOOD PUSH BUTTON.

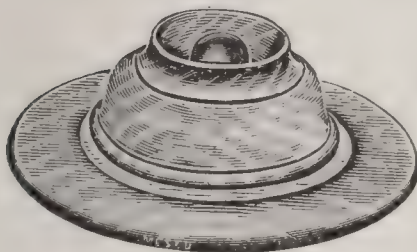
1 3/8-inch diameter ; German Silver Springs.
Made in Oak, Ash and Walnut, highly polished.



List No.		Price.
1340	Assorted Woods.....	\$0 18

LARGE BASE WOOD PUSH BUTTON.

The base of this Push is 3 3/4-inches in diameter and is used to cover up holes where mechanical pulls, etc., have been taken out.

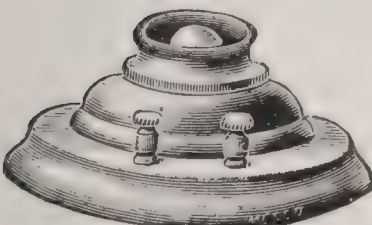


Cut Half Size.

List No.		Price.
1365	Oak only.....	\$0 20

EXTENSION PUSH BUTTON.

Can be used as a regular push button and by attaching cord with pear push it can be extended to any desired point, such as a bed, desk, table, etc. Made in Oak and Walnut.



Cut Half Size.

List No.		Price.
1364	Assorted Woods.....	\$0 30

PAPER WEIGHT DESK PUSH.

This is a nicely polished Wood Push ; with a weighted base. Serves as a paper weight as well as a push button.



Cut Half Size.

List No.		Price.
1258	Oak only.....	\$0 30

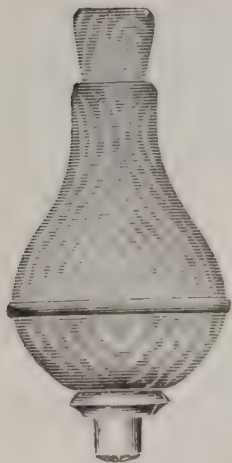
DOUBLE CONTACT OR RETURN CALL PUSH BUTTON.

These Push Buttons have upper and lower stationary contacts, and a movable spring which is normally in contact with the upper point and makes contact on lower when the button is pressed.

They are intended for return call annunciators or bell circuits, when a bell is required at each end of line. Made in Oak or Ash.

List No.		Price.
1349	Assorted Woods.....	\$0 25

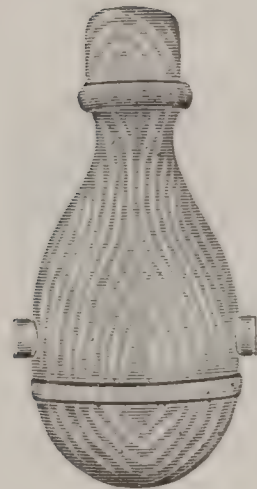
PEAR SHAPE PUSH BUTTONS.



REGULAR PEAR PUSH BUTTON.

Finely finished in Ash, Oak, Cherry, Walnut and Mahogany. Has Nickel-plated Push. Flexible cord is easily attached to contact springs.

List No.	Price.
1369 Pear Push.....	\$0 20



DOUBLE PEAR PUSH BUTTON.

Has one Nickel-plated and one Hard Rubber Push. Is used for lighting and extinguishing automatic gas burners and other purposes where two pushes are required.

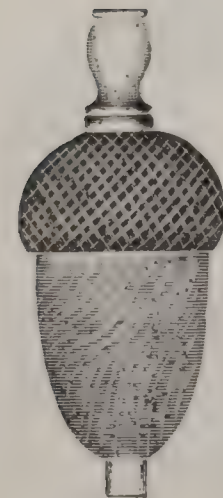
List No.	Price.
1370 Pear Push.....	\$0 35



FANCY PEAR PUSH.

This handsome Push is made in Ash, Oak, Walnut and Mahogany. Has Ivory centre and top. Highly polished.

List No.	Price.
1378 Push Button.....	\$0 50

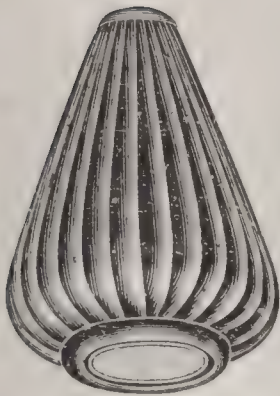


FANCY ACORN PUSH.

A fine imitation of an acorn, the lower part is made of oak and the cap of black walnut. It has an Ivory centre and top. Very unique.

List No.	Price.
1140 Push Button.....	\$0 50

PEAR SHAPE PUSH BUTTONS.



METAL PEAR PUSH.

This Push is made of Brass and finished in either Bronze or Nickel-plate.

List No.

Price.

1377 Pear Push..... \$0 50



METAL DOUBLE PEAR PUSH.

This Push is used for gas lighting and call bell work.

Finished in Bronze or Nickel-plate.

List No. /

Price.

1380 Pear Push..... \$1 00



ELECTRIC PRESSELLES.

The Presselles are used for the same purposes as the Pear Shape Push, and operated by simply pressing the ends together. They can be covered with a fringe of a color to match the trimmings of the room, and will resemble a tassel. Finished in Oak only.

List No.

Price.

1331 Electric Presselle..... \$0 30



PEAR PUSH ESCUTCHEON.

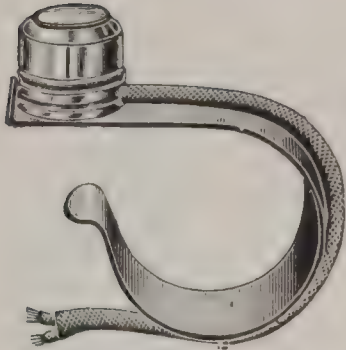
For attaching flexible cord to wall or ceiling for Pear Shape Pushes. Made in Oak only.

List No.

Price.

1260 Escutcheon..... \$0 20

ELECTRIC TABLE CLAMPS.



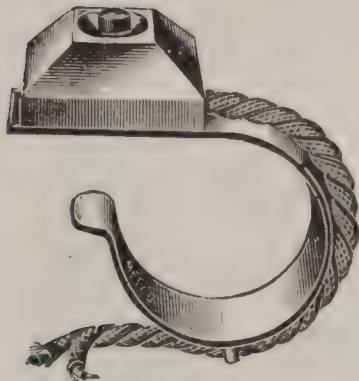
Cut Half Size.

Table Clamps are use on dining-table, card tables, desks, etc. Generally in connection with floor pushes.

PEARL CENTRE TABLE CLAMP.

This Clamp is nicely nickel-plated with Pearl centre and will not mar the finest table.

List No.	Price.
1261 Table Clamp.....	\$0 50



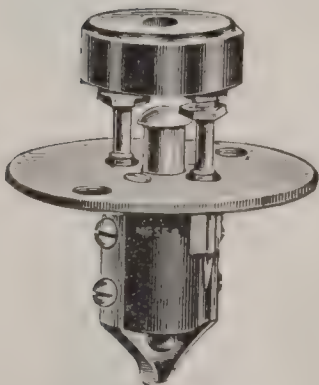
Cut Half Size.

BLACK CENTRE TABLE CLAMP.

Full Nickel-plate with black centre. A good seller

List No.	Price.
1262 Table Clamp.....	\$0 50

Flexible cord not included.



Cut Half Size.

COMBINATION FLOOR PUSH.

This Push same as the regular floor push but has an extension attachment for connecting flexible conducting cord with table clamp or pear push. By using cord of appropriate length, signal can be made from any part of the room.

Small eyelets can be made in carpet or rug for plug without injury to either. Plug can be removed when not in use.

List No.	Price.
1264 Combination Floor Push, complete.....	\$0 55
1270 Plug only.....	20

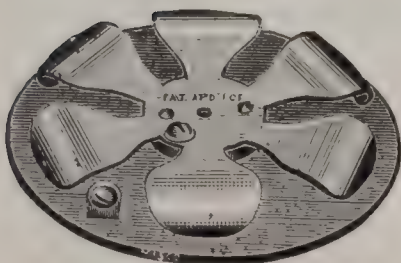


Cut Half Size.

REGULAR FLOOR PUSHES.

These Pushes are generally set in the floor under dining-room tables where they can easily be reached by the operator's foot, and are used to signal the servant from kitchen or pantry.

List No.	Price.
1263 Floor Push, complete.....	\$0 40



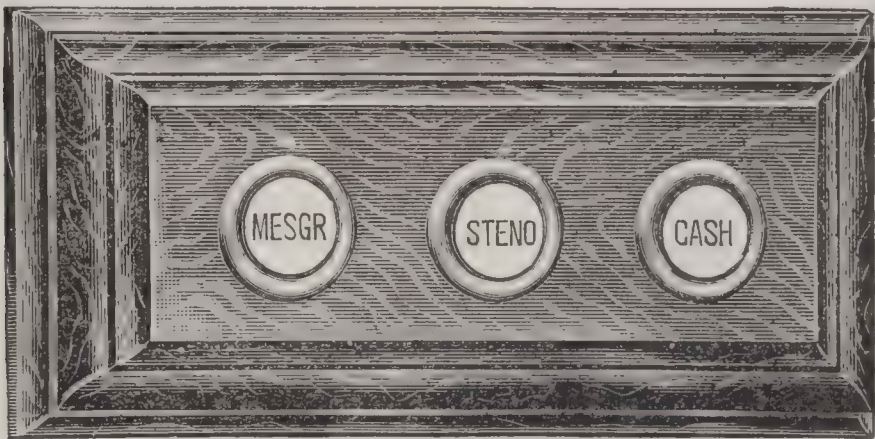
FLOOR TREAD.

This article is to be used under carpets or rugs. No hole is necessary. The location can be easily determined by the foot.

The tread may be moved about to suit the user without change of wiring as contact may be made from any point. Will not mar hard-wood floors.

List No.	Price.
1141 Floor Tread.....	\$1 50

WOOD BASE COMPOUND PUSH.

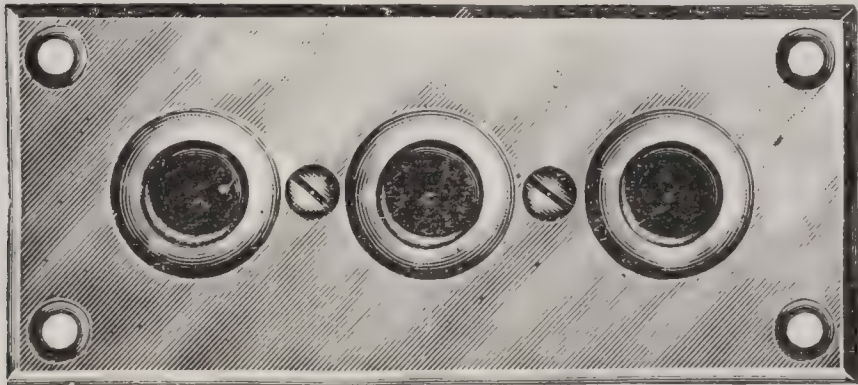


Oak block with solid back covered with felt. Finely finished. It has our No. 1332 Push with white centre. Without lettering.

List No.		Price.
1265	1 Button Block, complete.....	\$0 60
1266	2 " " " ".....	90
1267	3 " " " ".....	1 30
	Over 3 Numbers per button.....	40
	Letters or figures extra, each.....	04

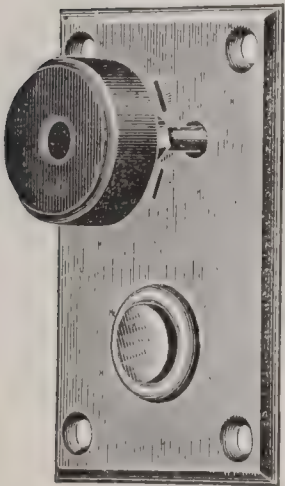
If no lettering is required we can furnish our No. 1334 Pearl Centre Push.

CAST BRONZE COMPOUND PUSH BUTTON.



Polished Bronze or Nickel-plated finish in stock. Special finishes to order. Pearl centres.

List No.		Price.	List No.		Price.
1249	2 Button, size 2 x 3 inches..	\$0 60	1254	7 Button, size 8 x 2 inches..	\$1 60
1250	3 " " 3 7/8 x 1 7/8 " " ..	80	1255	8 " " 9 x 2 " " ..	1 80
1251	4 " " 5 x 1 7/8 " " ..	1 00	1256	9 " " 10 x 2 " " ..	2 00
1252	5 " " 6 x 2 " " ..	1 20	1257	10 " " 10 7/8 x 2 " " ..	2 20
1253	6 " " 7 x 2 " " ..	1 40			



COMBINATION WALL PLATE AND PLUG.

This article consists of a bronze metal wall plate with push button and a detachable extension plug.

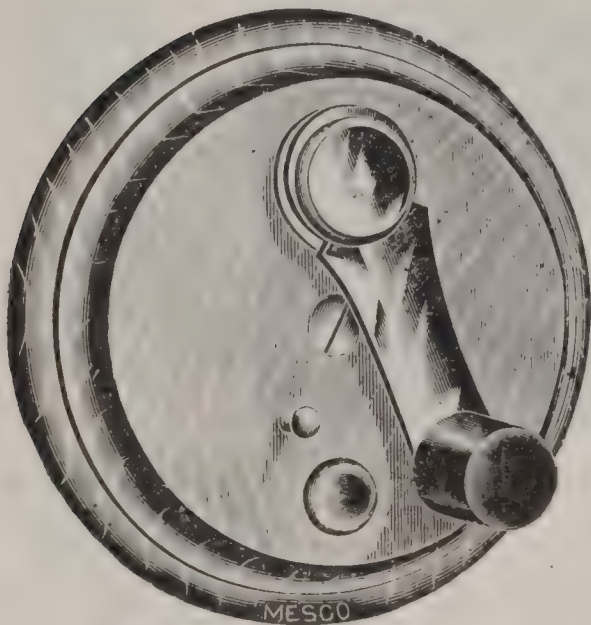
A flexible cord of suitable length and a pear push may be attached to plug enabling call to be made from any part of room.

Especially adapted for private rooms in hospitals, bedrooms, dining-rooms, etc. Size, 2 x 3 inches.

Finished in Nickel-plate and Polished Bronze for stock. Special finishes to order.

List No.	Price.
1142 Wall Plate and Plug.....	\$1 00

WOOD AND RUBBER SWITCHES.



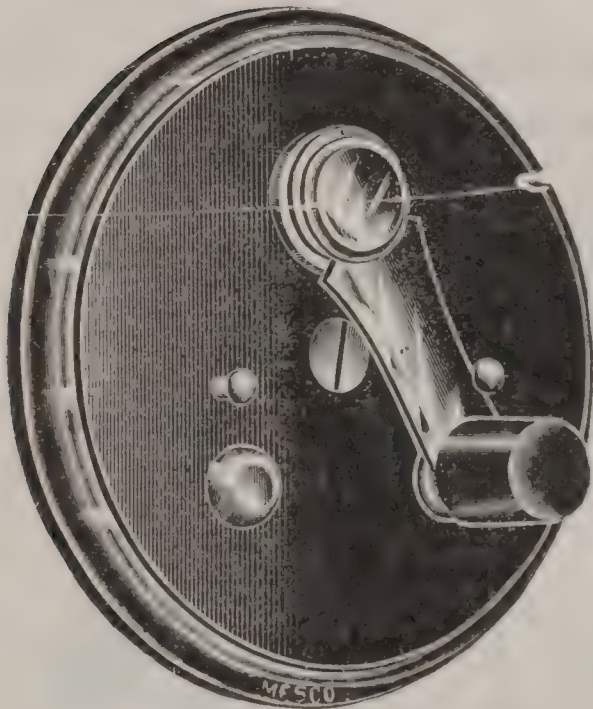
2 1/4 INCHES DIAMETER.
List No. 1606.

Round Wood Base.

Nickel-plated Lever and Points.

List No.		Price.
1606	1 point, each	\$0.15
1607	2 " " .....	.17
1608	3 " " .....	.19
1609	4 " " .....	.24
1610	5 " " .....	.32
1611	6 " " .....	.34
1612	7 " " .....	.36
1613	8 " " .....	.39
1614	9 " " .....	.41
1615	10 " " .....	.43

Made in Ash, Oak, Cherry and Walnut.



2 5/8 INCHES DIAMETER.
List No. 1617.

Round Rubber Base.

Nickel-plated Lever and Points.

List No.		Price.
1616	1 point, each	\$0.76
1617	2 " " .....	.78
1618	3 " " .....	.80
1619	4 " " .....	.82
1620	5 " "	1.22
1621	6 " "	1.24
1622	7 " "	1.27
1623	8 " "	1.29
1624	9 " "	1.31
1625	10 " "	1.33

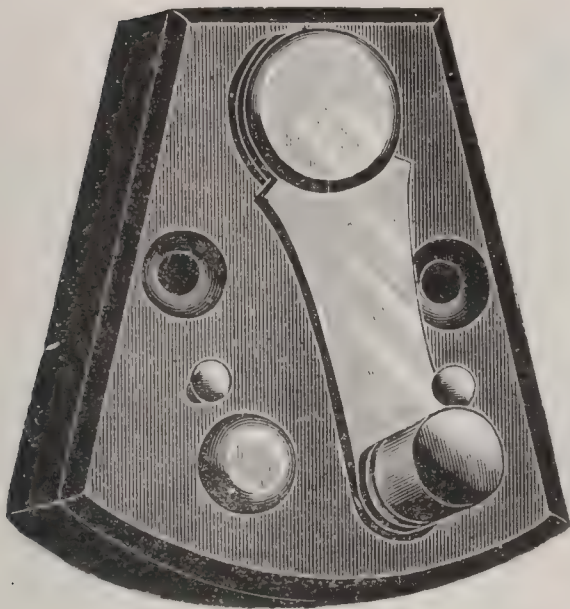
SWITCH LEVERS AND CONTACT POINTS.

Unmounted. Nickel-plated.

List No.		Price.
1703	Lever, complete, with nuts and handle..... each,	\$0.09
1704	Contact points, " " .....	.03

These are the same as used on Wood and Rubber Base Switches.

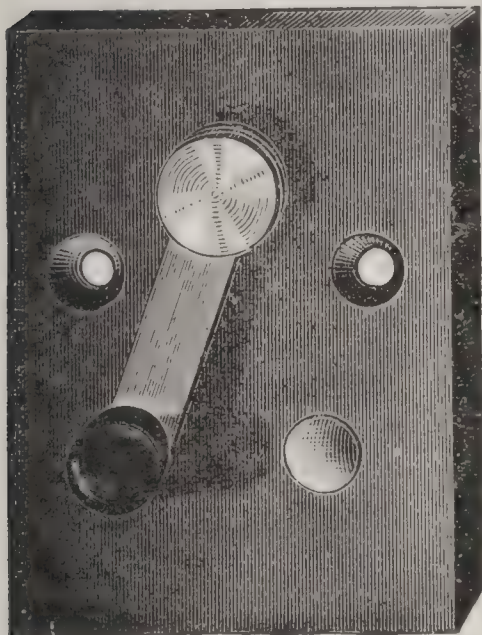
BELL SWITCHES.



KEYSTONE SWITCHES.

Nickel-plated Trimmings.

List No.		Price.
1626	1 Point.....	\$0 60
1627	2 ".....	65
1628	3 ".....	70
1629	4 ".....	90



SQUARE RUBBER BASE SWITCHES.

Nickel-plated Trimmings.

List No.		Price.
1630	1 Point.....	\$0 50
1631	2 ".....	55
1632	3 ".....	60
1633	4 ".....	65

SQUARE WOOD BASE SWITCHES.

Nickel-plated Trimmings.

List No.		Price.
2000	1 Point.....	\$0 30
2001	2 ".....	32
2002	3 ".....	34
2003	4 ".....	36



CROWN SWITCHES.

This is the only double break, single pole, bell switch made.

The arm is securely held in place by a spring clip and the ends of the arm are concaved to fit over the points, thus ensuring a perfect contact and a quick, sharp break.

ROUND METAL BASE.

List No.		Price.
1634	Single, Nickel-plated	\$0 25

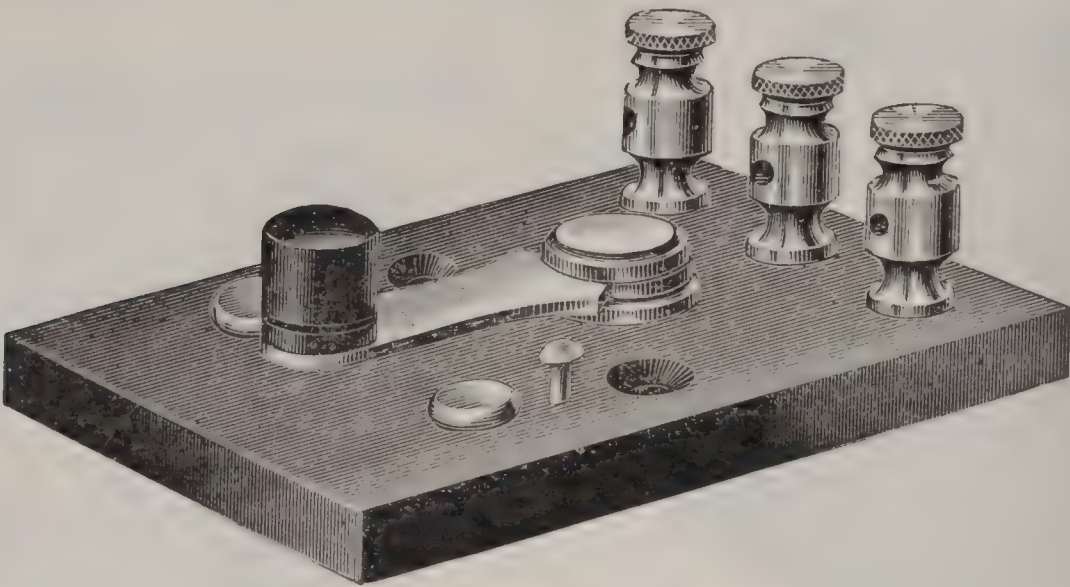
SQUARE METAL BASE.

1635	Double, Nickel-plated	50
------	-----------------------------	----

SQUARE WOOD BASE.

1143	Single.....	20
1144	Double.....	40

WOOD AND RUBBER BASE SWITCHES.



Wood Base.			Price.
List No.			
1638	1 Point, with Binding Posts..		\$0 55
1639	2 " " " " ---		65
1640	3 " " " " ---		75
1641	4 " " " " ---		85

Rubber Base.			Price.
List No.			
1642	1 Point, with Binding Posts..		\$1 00
1643	2 " " " " ---		1 20
1644	3 " " " " ---		1 40
1645	4 " " " " ---		1 60

THE EZYTEST WINDOW SPRING.
(PATENT APPLIED FOR).



The "Ezytest" Window Spring is designed to overcome the most objectionable features of the ordinary types heretofore used.

With all other types it is necessary to remove the window strips and sashes every time a test is made; but with the "Ezytest" this extra work is obviated as each spring can be tested without the removal of either strips or sashes. This is accomplished by both contacts being insulated from the plate and the current conducted from one contact to the plate through the pivoted circuit braker (designated by arrow in the cut.)

In case of a short circuit in any section of the system, the circuit breaker can be operated from the front of the plate, and by a few minutes work the spring in which the trouble exists can be located. If the circuit breaker should be left open, the closing of the window will automatically restore the circuit.

The metal tongue which presses in the groove of the sash is so constructed that it will operate satisfactorily with the end of the sash groove, either squared or beveled.

Many short circuits have been made with old type springs by square end grooves and the sash cord mortise.

The wires are connected to binding posts on spring. A great improvement over the old style.

List No.	Price.
1578 Ezytest Window Spring-----	\$0 30

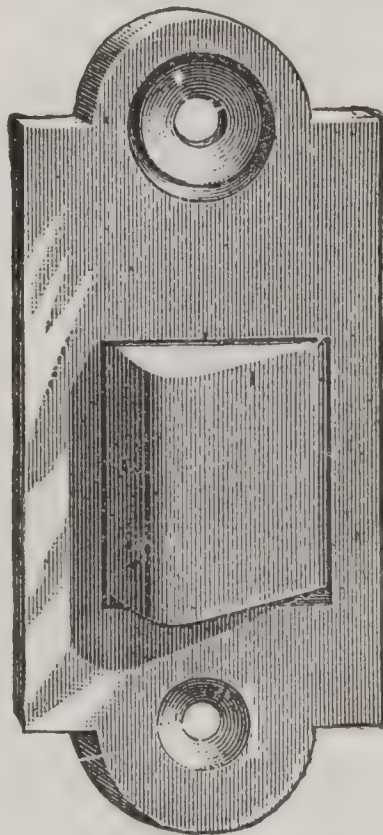
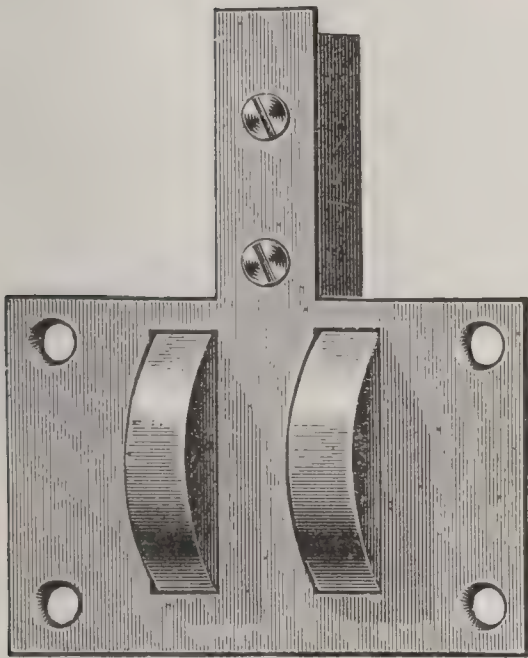


BURGLAR ALARM WINDOW SPRINGS.

Double
Window Spring.

Transom Spring.

Window Spring.



For Swinging Windows, Etc.

List No.	Price.
1575 Each.....	\$0.20

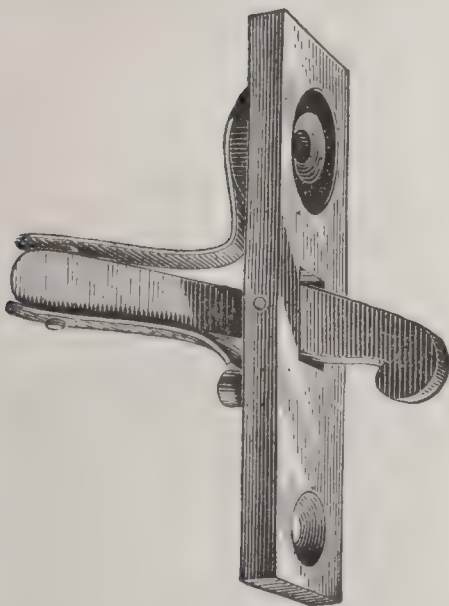
List No.	Price.
1573 Each....	\$0.35

List No.	Price.
1574 Each..	\$0.20

Shade Spring.

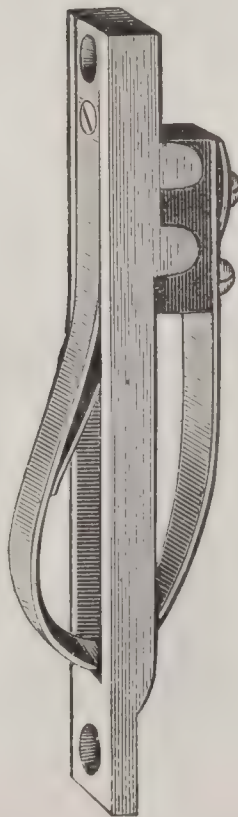
Window Spring.

Double Window Spring.

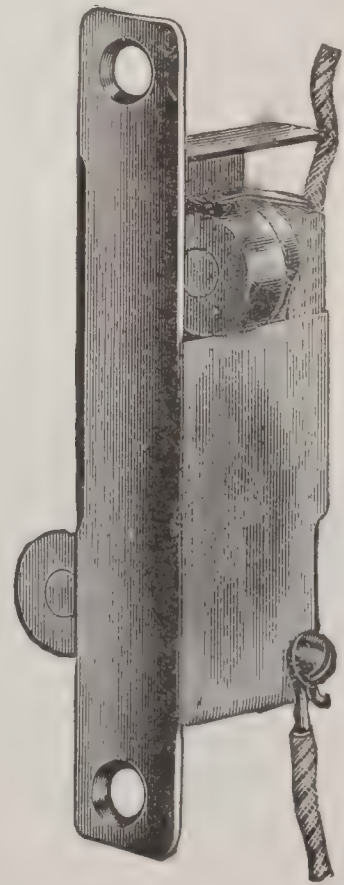


The cord of a spring shade is attached to the arm. The slightest interference with the shade will sound the alarm.

List No.	Price.
1579 Each.....	\$0.40



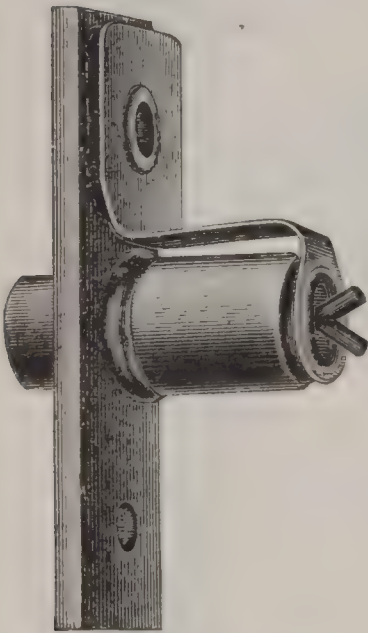
List No.	Price.
1576 Each...	\$0.25



List No.	Price.
1577 Each...	\$0.30

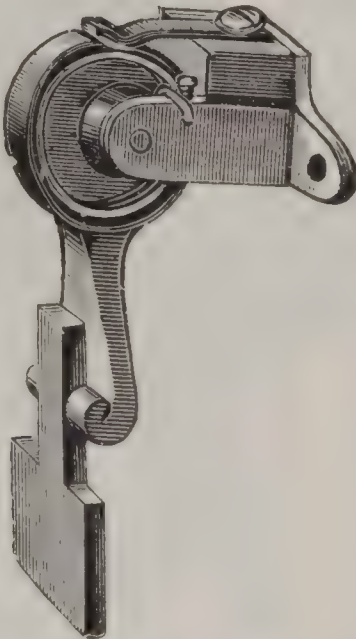
BURGLAR ALARM DOOR SPRINGS.

DOOR SPRING.



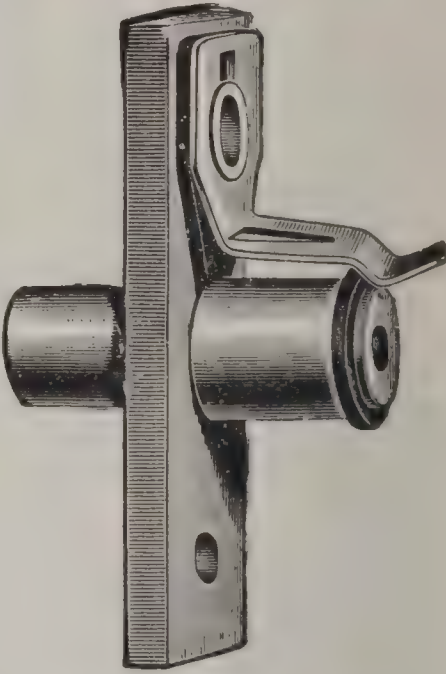
List No. Price.
1566 Each, \$0.16

DOOR TRIP.



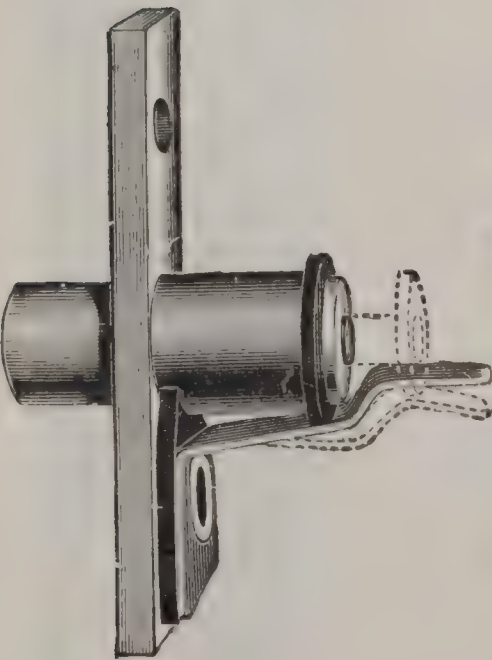
For use on store doors to announce entrance of customer. Rings signal when door passes the trip, but is silent when open, and in closing door.
List No. Price.
1570 Each.....\$0.30

DOOR SPRING.



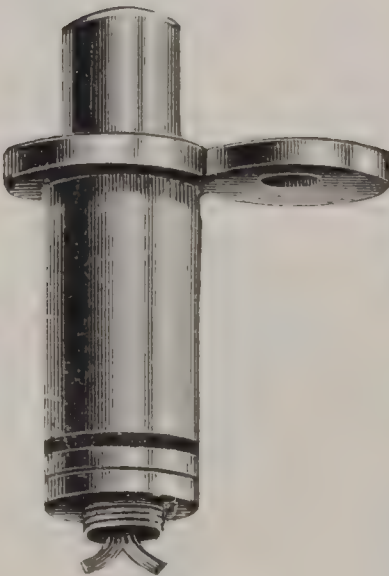
List No. Price.
1567 Each....\$0.18

DOOR SPRING.
Closed Circuit.



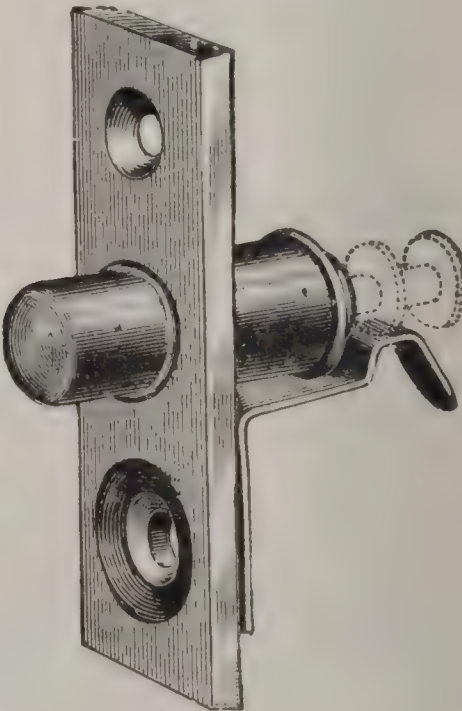
List No. Price.
1568 Each.....\$0.20

TELESCOPE
DOOR SPRING.



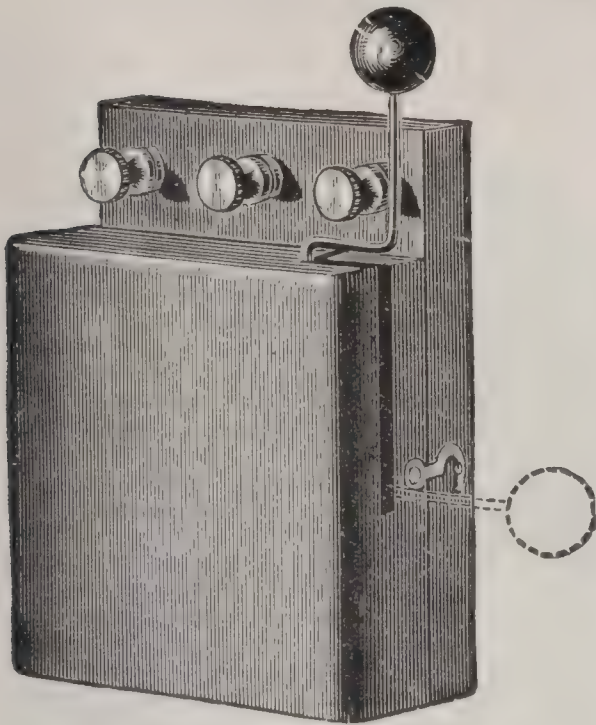
List No. Price.
1571 Each...\$0.16

DOOR SPRING.
Make and Break.



List No. Price.
1569 Each.....\$0.20

AUTOMATIC DROPS.



List No. 1580.

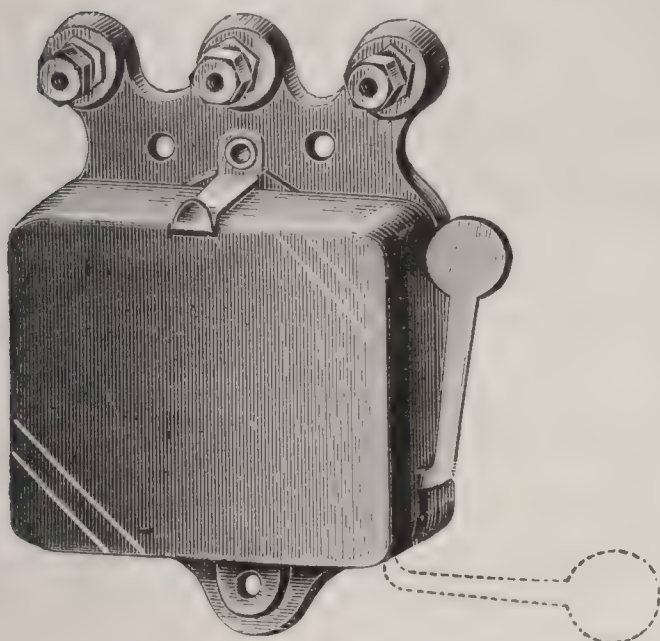
Continuous Ringing Attachment for
Burglar Alarms, Bells and
Magneto Circuits.

These Drops are used for closing a bell circuit automatically, and keeping it closed as long as desired. When the circuit is closed the drop, operated by an electro-magnet, falls and holds the circuit closed until it is raised again.

Finished in Oak.

Nickel-plated Trimmings.

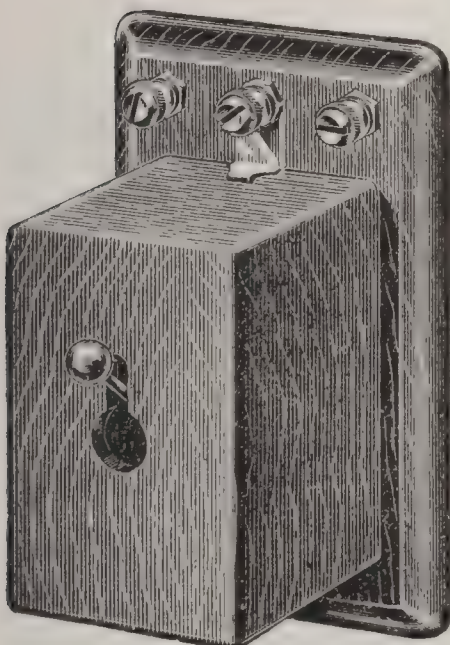
List No.	Price.
1580 For Battery Circuit....	each, \$1.70
1581 " Magneto " 80 ohms, "	2.50



List No. 1582.

Black Japanned Iron Frame and Cover,
Nickel-plated Trimmings.

List No.	Price.
1582 For Battery Circuit... each,	\$0.90
1583 " Magneto " 80 ohms "	1.50



List No. 1584.

Finished in Oak.

Nickel-plated Trimmings.

List No.	Price.
1584 For Battery Circuit.....	\$1.20

This is an old favorite with our trade.

BURGLAR ALARM TRAPS.

Constant Ring, Easily Set.

JOHNSON'S

BURGLAR ALARM TRAP.

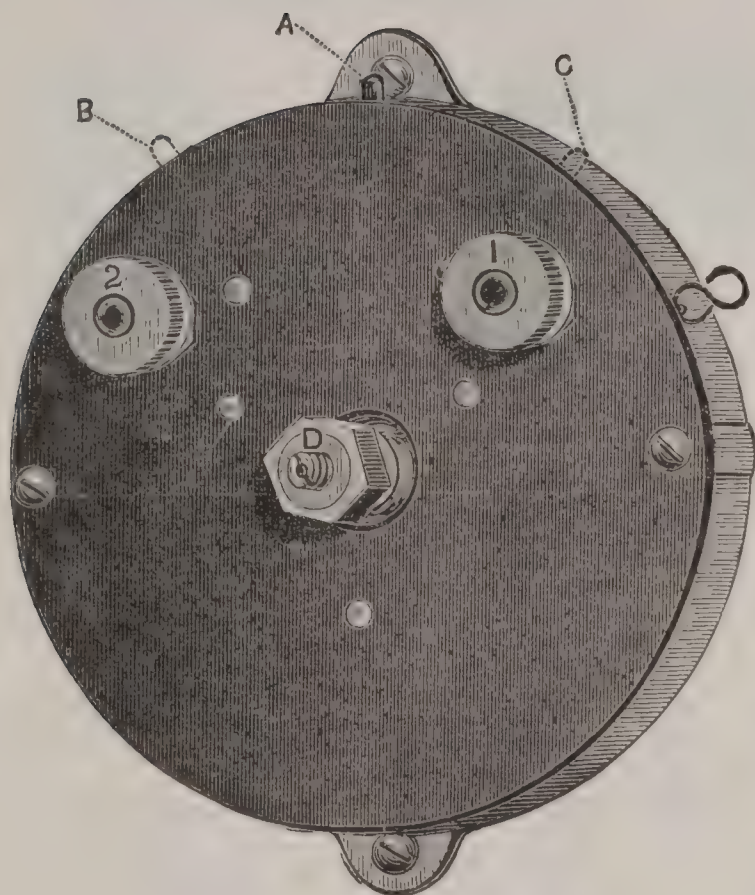
This is the most convenient and reliable Burglar Alarm Trap manufactured. The mechanism is so arranged that the black string is automatically wound inside of the case when the trap is not in service.

To set the trap attach the end of the cord to a small hook which can be placed within 12 feet of the trap so that the string will be disturbed by an intruder when entering or while passing through a room or hallway. After the string is attached move the needle contact "A" to the centre of slot in top of trap and tighten thumb nut "D". Any disturbance of the string either by running against it or breaking it, after that will close the bell circuit and continue the bell ringing until the circuit is opened by a switch or at the trap. The string can be attached to a door or window or across the stairway, hall or room, or any place where it is liable to be disturbed.

It will also act as a Fire Alarm if the string should be burned.

The expense of a complete working outfit is very moderate, all that is required is one vibrating bell of suitable size, two or three mesco dry batteries, sufficient wire to make connections and as many traps as may be desired, all of which can be connected in the one circuit.

An excellent protector for furnished houses while temporarily unoccupied.



List No. 1585.

ILLUSTRATION FULL SIZE.

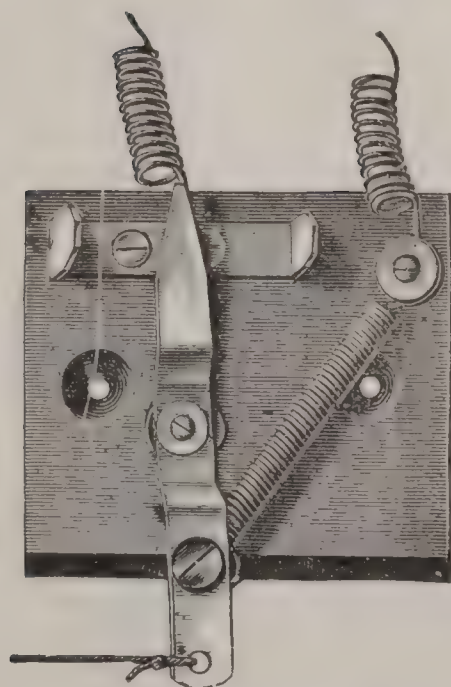
List No.

Price.

1585 Each.....\$1 00

BURGLAR ALARM TRAP.

Simple, Reliable and Cheap. Has Positive Contact.



List No. 1605.

SIZE, 2½x3 INCHES.

Cut shows the trap balanced between the contact points by the use of a string, which can be stretched in any room or hallway of the building to be protected from intruders. The slightest disturbance of string draws the needle to the right and closes bell circuit, and if the string is broken the spring draws needle to the left. when the circuit is completed and constant ringing bell gives an alarm.

If a constant ring is desired, an automatic constant ringing drop should be connected in circuit, as this type of trap will not make permanent contact unless the cord should be broken when disturbed.

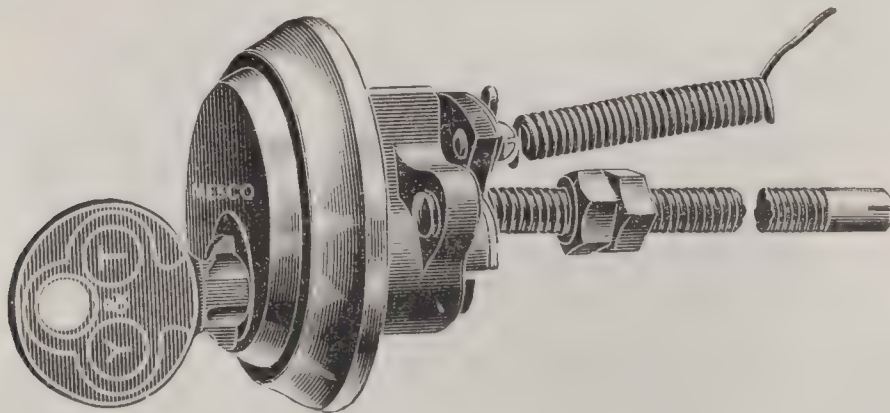
List No.

Price.

1605 Each.....\$0 40

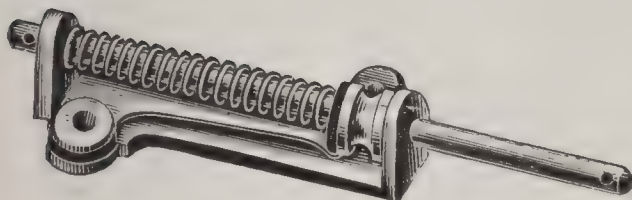
BURGLAR ALARM LOCK SWITCHES.

These Switches are placed on the doors of stores, residences and other buildings connected with burglar alarm systems, so that persons having the proper keys can go in or out of the building without ringing the alarm.



List No.	Price.
1602 Yale Lock (3 Keys), with Rod.....	\$2 75
1603 Corbin Lock (3 Keys), with Rod.....	2 50
1647 Competition Lock (3 Keys), with Rod.....	1 80

CIRCUIT CLOSING ATTACHMENT FOR DOOR BELL PULLS.

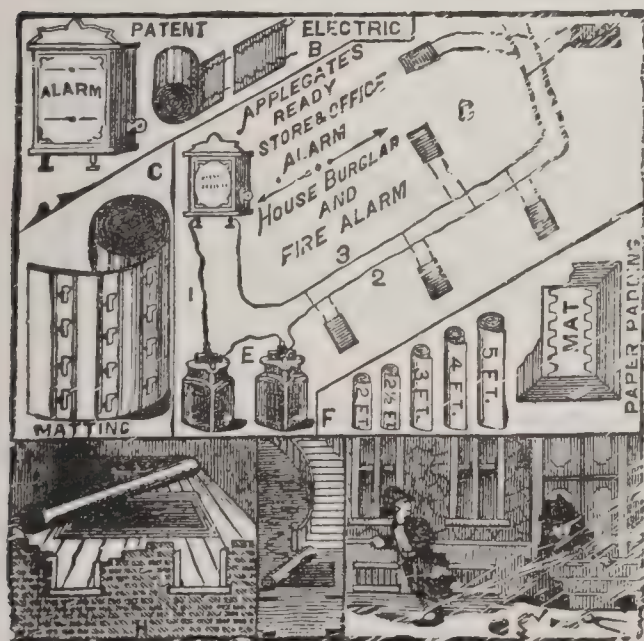


This improved Circuit Closer is designed for connecting a mechanical door pull, so as to ring an electric bell located anywhere in the house. It can be attached without displacing the bell pull already in use, and will operate both the mechanical and electrical bells from the same pull.

List No.	Price.
1594 Door Bell Pull Attachment, complete.....	\$0 30

ELECTRIC BURGLAR ALARM MATTING.

ONLY TWO WIRES TO RUN.



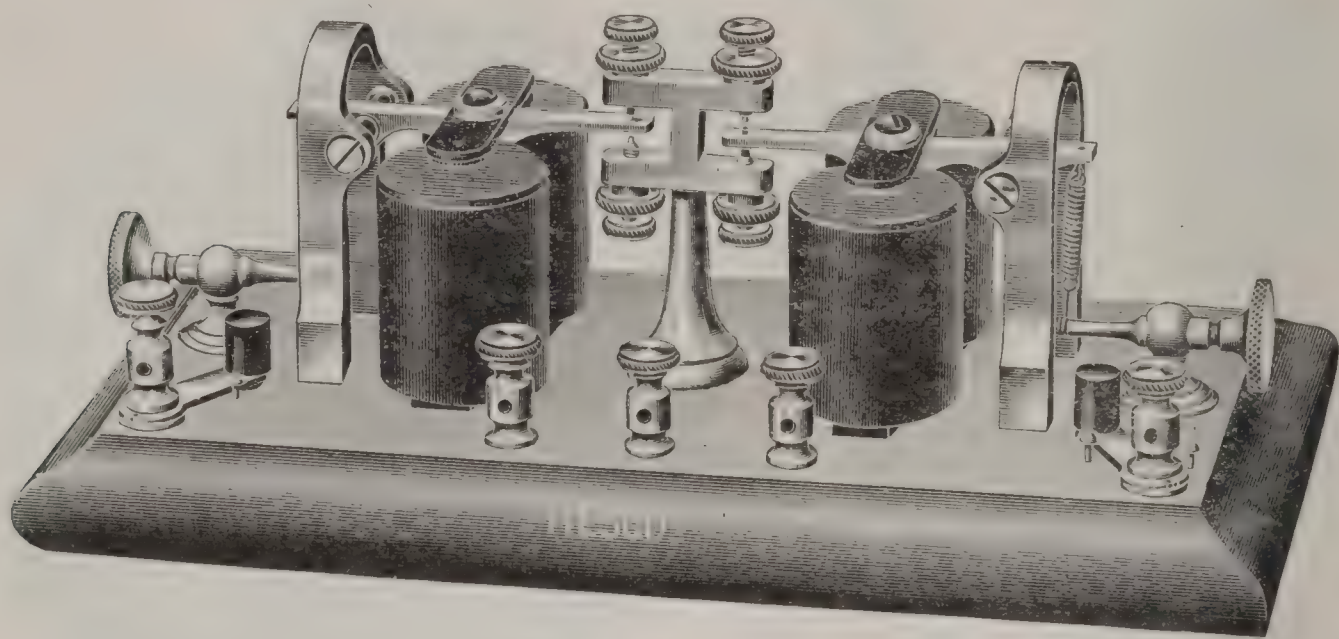
The matting is easily and quickly fitted without disfiguring or disarranging the furniture or fixtures. There is no cutting into doors or windows, and can be removed at pleasure. If the matting is placed at the entrance to an apartment, no person can enter it without sounding an alarm that will attract attention. The same result is obtained by placing the matting in different parts of the house where valuables are kept. Properly adjusted throughout a building, no burglar or sneak-thief can enter without creating an alarm.

Made 2, 2½ and 3 feet wide, and can be furnished at any length desired.

List No.	Price.
1604 Per square foot.....	\$0 30

DOUBLE BALANCE RELAY.

For Closed Circuit Burglar Alarm Work, in Protecting Distant Premises.



List No. 1595.

The relay is located at the place where the alarm is to be given.

The circuit passes through both sets of coils, which are of high resistance. One set is adjusted at the highest tension so that any diminution of current will release its armature. The other set is adjusted just beyond the strength of the current to attract it, so that any increase in power will pull the armature down.

Both armatures rest, when "set," upon screws with insulated points; but, any alteration of current throws one of them into contact with the opposite screw which is platinum pointed, and closes a local circuit operating a bell or indicator. This arrangement effectually prevents tampering with the line, as it can neither be cut, crossed or grounded without giving an alarm.

This relay is provided with two switches on the base of the instrument so that either one or both local points may be cut out of circuit at pleasure.

When employed on central systems, this arrangement will allow one side (usually the "brake" side) to be in circuit during business hours. When ready to close the night circuit, if at a distance, a signal announcing "O. K." or "everything ready," can be sent into Central by opening the circuit through a key on the protected premises.

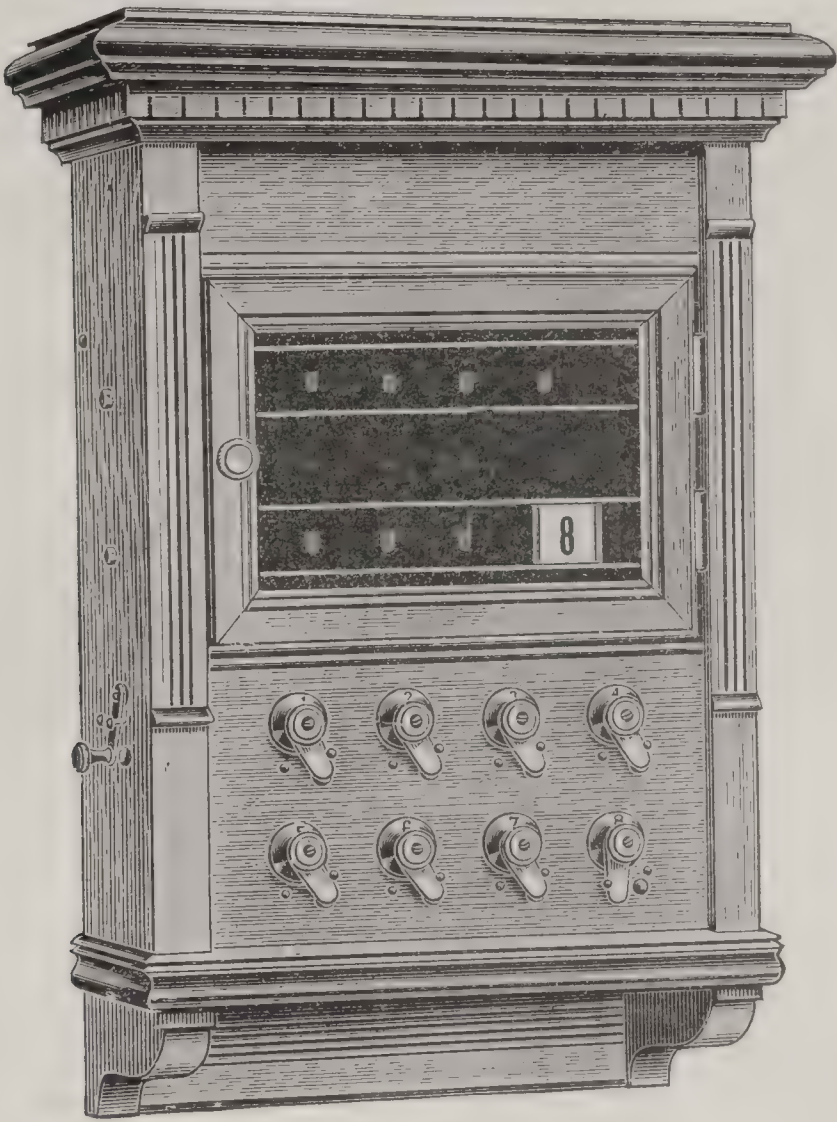
List No.	Price.
1595 Double Balance Relay.....	each, \$12.00

BURGLAR ALARM RESISTANCE COILS.

A resistance coil is usually placed at the end of Closed Circuits, on protected premises. They will be wound from 100 to 350 Ohms, as ordered.

List No.	Price.
1587 50 Ohms.....	each, \$0.45
1596 100 ".....	" .50
1597 150 ".....	" .60
1598 200 ".....	" .70
1599 250 ".....	" .80
1600 300 ".....	" .90
1601 350 ".....	" 1.00

BURGLAR ALARM ANNUNCIATORS.



List No. 1708.

This Burglar Alarm has gravity drop, constant ring, silent test and sectional switches. The cases are well finished and substantially made, and are so constructed that the case may be removed, leaving the backboard attached to the wall on which the drops are mounted so they may be easily inspected.

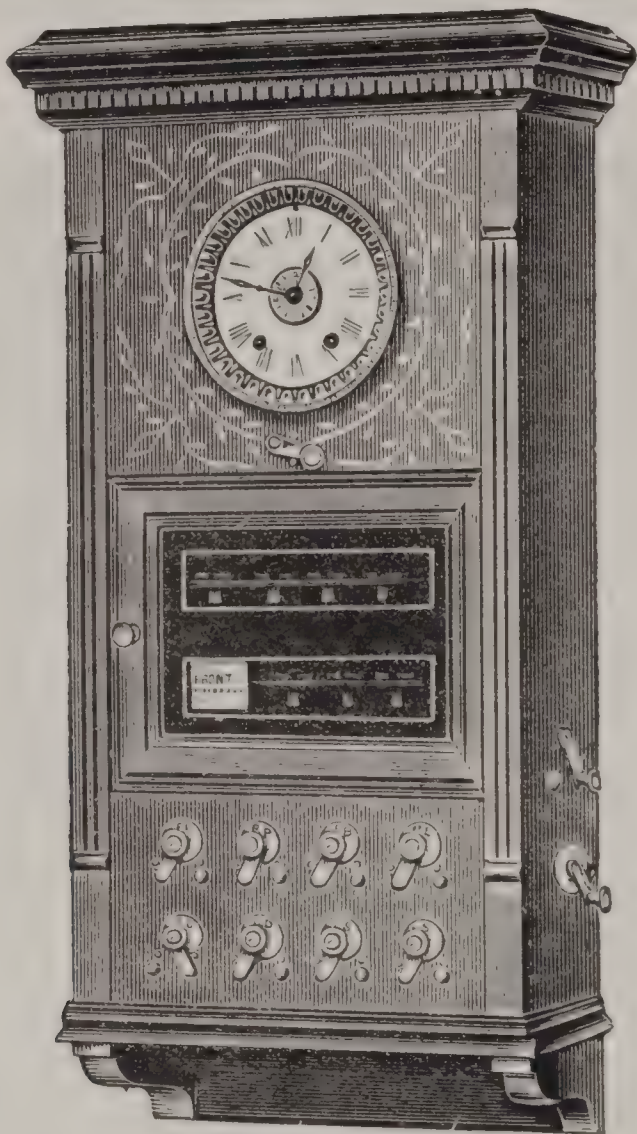
The metal bases of switches are numbered or lettered to correspond with drop tag. All exposed metal parts heavily nickel-plated.

Furnished in Oak, Walnut, Mahogany or Cherry, at short notice.

Every instrument guaranteed.

List No.							Price
1705	Burglar Alarm, 4 Drop, without Bell						\$12.00
1706	"	"	5	"	"	"	14.00
1707	"	"	6	"	"	"	16.00
1708	"	"	8	"	"	"	20.00
1709	"	"	10	"	"	"	24.00

AUTOMATIC CLOCK BURGLAR ALARM.



This Instrument contains a fine Fifteen-Day Seth Thomas Pendulum Clock Movement with Enameled Dial, which automatically disconnects any sections that are switched on the left hand points and rings servants' bell at any time desired, when centre dial and switch are set.

The Attachments and their uses as follows :

THE SILENT TEST

Is to indicate when the house is properly closed.

THE BELL TEST

Is to indicate if bell and line are in proper order.

THE BATTERY TEST

Is to indicate if the battery is in proper order.

THE CONSTANT RINGING SWITCH

Causes the bell to ring continuously until disconnected at the instrument.

THE SERVANTS' CALL SWITCH

Causes servants' bell to ring at any time desired.

The case is artistically designed and highly finished. Can be furnished in any wood to match trim.

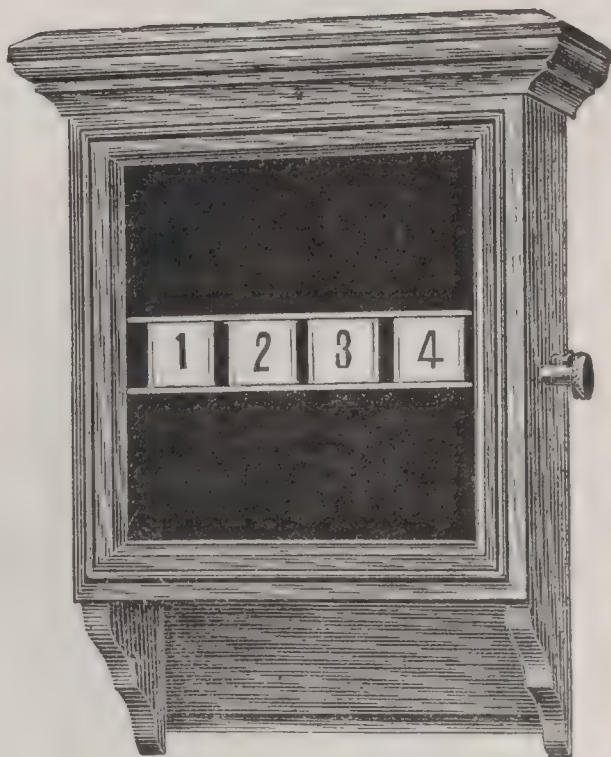
List No.		Price.
1710	Six Section Alarm.....	\$50 00
1711	Eight " ".....	84 00
1712	Ten " ".....	57 00

Full direction and wiring diagram on back of case.

HOUSE CALL ANNUNCIATORS.



List No. 1658.
(Style C.)



List No. 1663.
(Style D.)

These are reliable and finely finished Gravity Drop Annunciators.

The drops and bell are mounted on a backboard which is to be screwed to the wall. The case is attached to the backboard by two clamp hooks. This makes a very convenient arrangement for wiring or inspecting, as all of the working parts and wire connections are on the backboard and exposed to view when the case is removed.

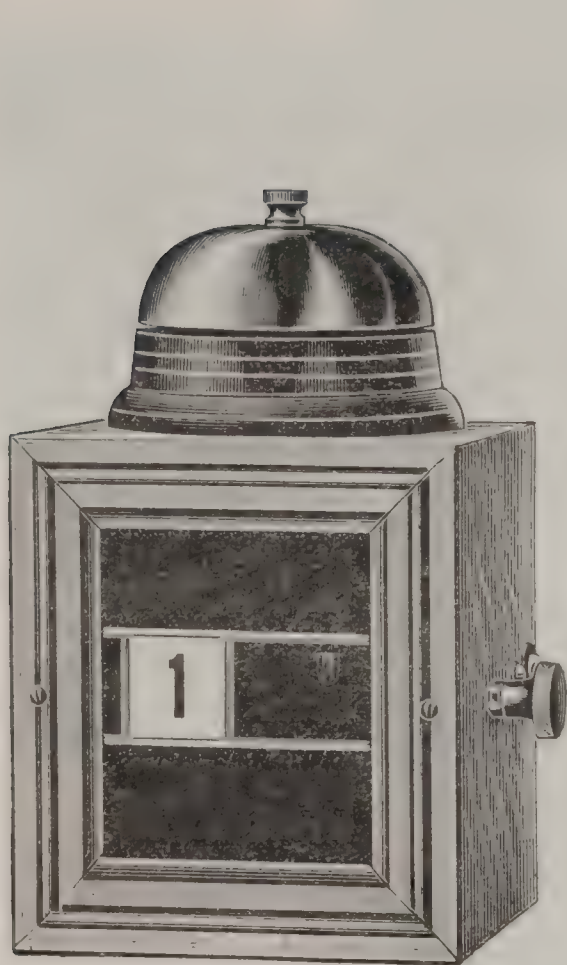
The drops and all other parts are carefully constructed and assembled. The cases in stock are finely finished Ash and Oak. Any other wood to order on short notice.

Tags are furnished with numbers or special lettering without extra charge.

List No.		Price.
1646	2 Drop, Style C, each,	\$5.00
1655	3 " " "	5.50
1656	4 " " "	6.00
1657	5 " " "	6.50
1658	6 " " "	7.00
1659	7 " " "	7.50
1660	8 " " "	8.00
1661	10 " " "	9.00
2050	12 " " "	10.50
2051	14 " " "	11.50
2052	15 " " "	12.00
2053	16 " " "	12.50
2054	18 " " "	13.50
2055	20 " " "	14.50
2056	22 " " "	15.50
2057	25 " " "	17.00
2058	28 " " "	18.50
2059	30 " " "	19.50

List No.		Price.
1674	2 Drop, Style D, each,	\$4.50
1662	3 " " "	5.00
1663	4 " " "	5.50
1664	5 " " "	6.00
1665	6 " " "	6.50
1666	7 " " "	7.00
1667	8 " " "	7.50
1668	10 " " "	8.50
2062	12 " " "	10.00
2063	14 " " "	11.00
2064	15 " " "	11.50
2065	16 " " "	12.00
2066	18 " " "	13.00
2067	20 " " "	14.00
2068	22 " " "	15.00
2069	25 " " "	16.50
2070	28 " " "	18.00
2071	30 " " "	19.00

HOUSE CALL ANNUNCIATORS.



List No. 1669.



List No. 1670.

Made In four sizes only, 2, 4, 6 and 8 Drops.

These are small, neat, compact and reliable Annunciators. The drops are the same as used in our regular house call types. An iron monitor bell is mounted on top of case.

This annunciator is preferred where the space is limited as the outside dimensions are considerably smaller than any other gravity drop annunciator manufactured.

Every part is carefully constructed and every annunciator guaranteed.
Made in Ash and Oak for regular stock. All other finishes made to order.
Tags are numbered or lettered as desired.

List No.				Price.
1669	2 Drop Annunciator.....	each,		\$4.00
1670	4 " "	"		4.50
1671	6 " "	"		5.00
1672	8 " "	"		5.50

ANNUNCIATOR OUTFITS.



In response to a demand from the trade, for an Annunciator Outfit to sell to the consumer complete, put up in a neat and attractive package with full directions for installing, we list the following.

These outfits can be used in many places ; in stores for calling clerks or porters, in factories for calling foremen to office.

In houses they are used for servants' call or for two or more door bells.

Each outfit is packed in a wood box with wiring diagram and full directions for installing.

TWO-DROP OUTFIT.

The Two-Drop Outfit consists of one two-drop No. 1669 Annunciator, two cells Mesco Dry Battery, one pound (150 feet) No. 18 Annunciator wire, one-half pound double pointed tacks, two wood push buttons.

FOUR-DROP OUTFIT.

One No. 1670 Annunciator, two cells Mesco Dry Battery, two pounds (300 feet) No. 18 Annun-
ciator wire, one-half pound double pointed tacks, and four wood push buttons.

List No.		Price.
1756	Two-Drop Outfit, complete.....	\$5 50
1757	Four " " "	6 75

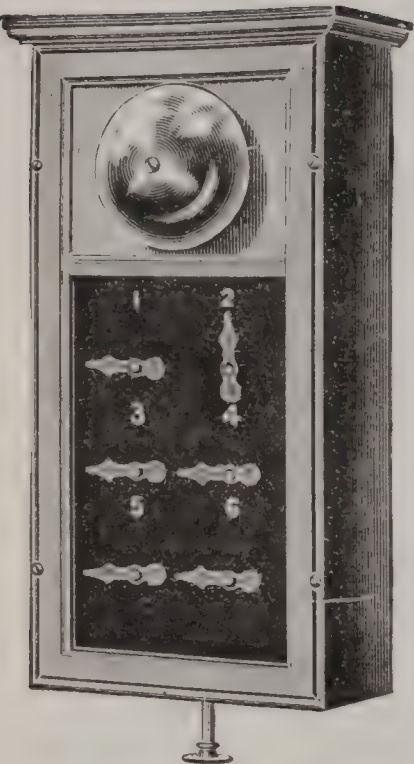
We can furnish the above outfits with any design push button listed in this catalogue for a small additional price according to selection.

NEEDLE DROP ANNUNCIATOR.

Simple. Positive. Neat.

These annunciators are of New Design and contain several features lacking in other makes such as a resetting device that does not "jump" all the needles every time the reset is operated. Needles that will not shake down under the most trying conditions and makes a full quarter turn when current is applied. The annunciator case is finely finished and is suitable for the most artistic surroundings of Home, Office, Cafe, etc., and the mechanism is particularly adapted for Elevators, Railway Cars, Steamships and any other place where unusual vibration prevails.

Finished in Oak only for stock. Special finishes to order.



List No. 1691.

HOUSE TYPE.

List No.		Price.
1688	3-Point.....	\$4.50
1689	4 "	5.10
1690	5 "	6.50
1691	6 "	7.00
1692	8 "	9.00
1693	10 "	11.00
1694	12 "	13.20
1695	16 "	17.60
1696	20 "	22.00
21 to 40 Points, per Indication.....		1.10



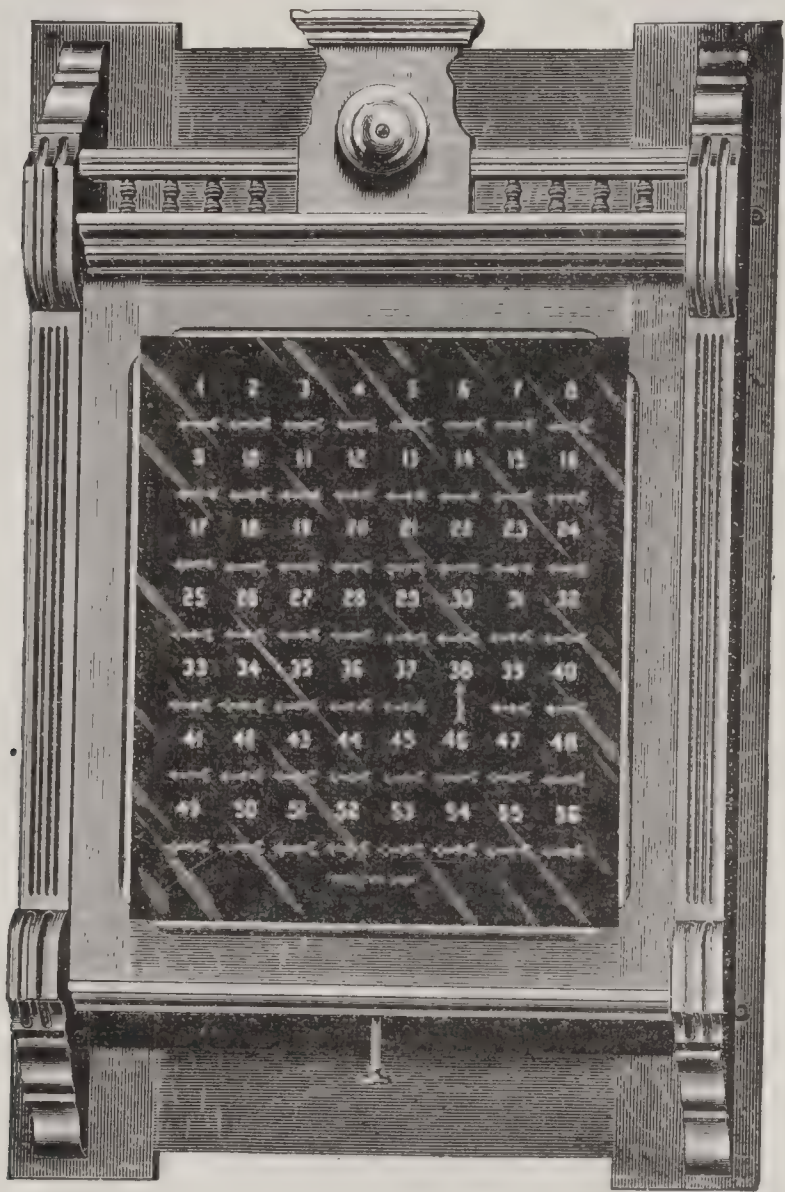
List No. 2009.

ELEVATOR TYPE.

List No.		Price.
2008	3-Point.....	\$5.90
2009	4 "	6.70
2010	5 "	7.70
2011	6 "	8.90
2012	7 "	9.90
2013	8 "	10.90
2014	9 "	12.15
2015	10 "	12.70

Above 10-point use House Types.

NEEDLE DROP ANNUNCIATORS.
HOTEL TYPE.



List No. 1698.

This Annunciator has an elegantly finished, heavy ornamental case. The drops are our improved type as described on preceding page. The resetting device is strong, durable, and easily operated. Every detail of construction is of the highest standard, and every Annunciator guaranteed to work satisfactorily.

List No. 1698.

Without Guest Call or Fire Alarm.

Nos.	Per No.
41 to 70.....	\$1.30
70 to 120.....	1.20
121 and up.....	1.10

List No 1699.

With Guest Call.

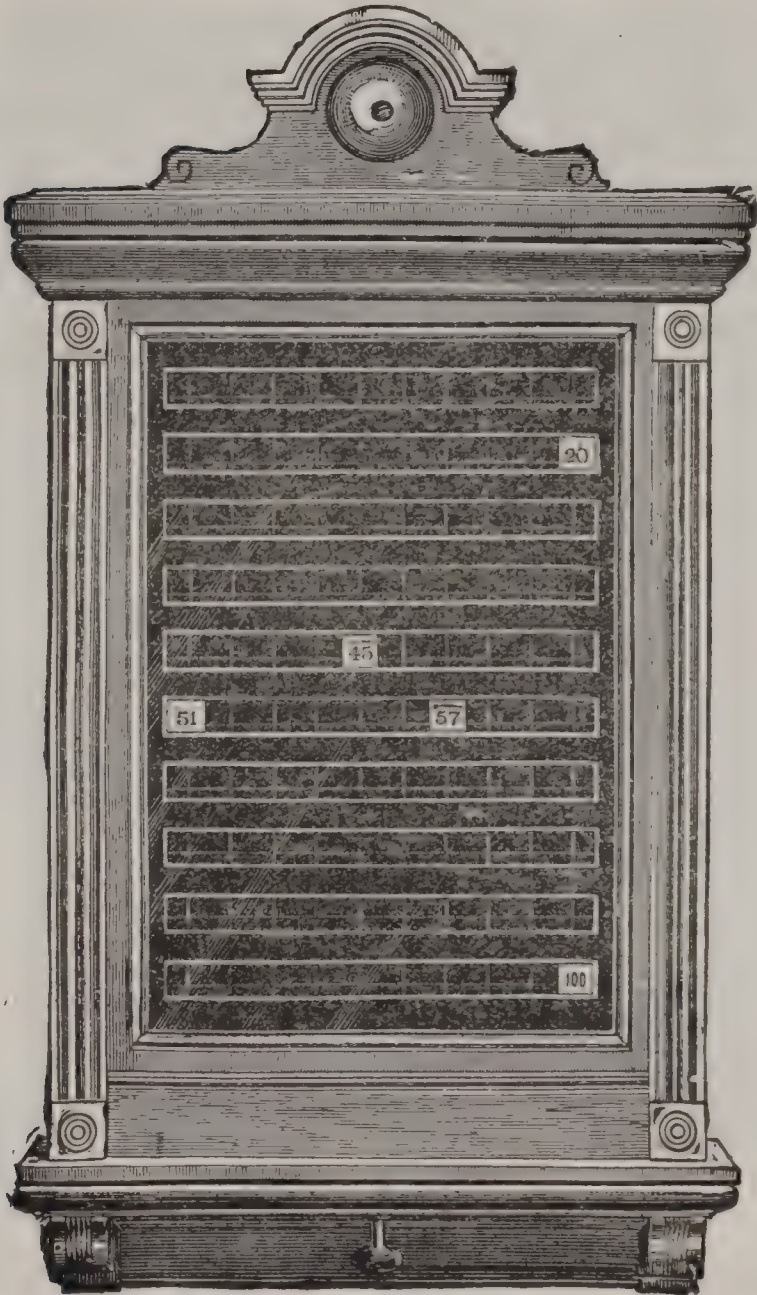
Nos.	Per No.
41 to 70	\$1.95
70 to 120.....	1.80
121 and up.....	1.65

List No. 1700.

With Guest Call and Fire Alarm.

Nos.	Per No.
41 to 70.....	\$2.25
70 to 120.....	2.05
121 and up.....	1.90

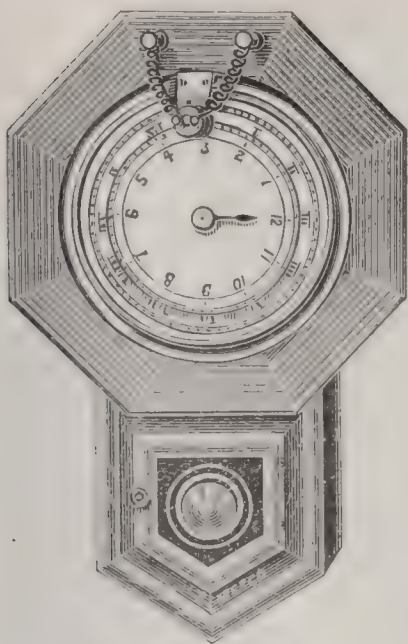
HOTEL ANNUNCIATOR.
GRAVITY DROP.



This is an elegantly finished, heavy case, high grade Gravity Drop Annun-
ciator. It is appropriate for any hotel office as the heavy ornamental woodwork
and piano finish makes it equal to the best furnishings of a hotel.
Every part is carefully constructed, tested and guaranteed to work satis-
factorily.
Woodwork made in Oak, Walnut, Mahogany or stained Cherry.
Tags numbered or lettered as desired.

List No.		Price.
1676	10 Drop, Plain.....	\$15.00
1677	12 " "	17.00
1678	15 " "	19.00
1679	20 " "	23.00
2025	25 " "	27.00
2026	30 " "	32.00
2027	35 " "	36.00
2028	40 " "	40.00
2029	45 " "	45.00
2030	50 " "	50.00
2031	60 " "	60.00
Extra for each additional Drop,		1.00

List No.		Price.
1681	10 Drop with Ret'n Call.	\$18.00
1682	12 " " "	21.00
1683	15 " " "	24.00
1684	20 " " "	30.00
2040	25 " " "	36.00
2041	30 " " "	43.00
2042	35 " " "	50.00
2043	40 " " "	57.00
2044	45 " " "	64.00
2045	50 " " "	70.00
2046	60 " " "	76.00
Extra for each additional Drop,		1.40



List No. 1718.

DETECTIVE ELECTRIC CLOCK.

CHEAPEST ONE-STATION WATCHMAN'S CLOCK MADE.

For indicating the time the circuit is closed at a certain station.

Can also be used as a time piece.

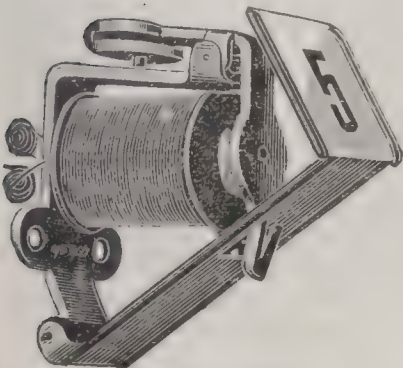
An excellent device for recording the time a person enters or leaves a building, or any purpose where a time record is desirable.

Requires two batteries equal in strength to the Mesco dry.

It has an eight day movement and the clock for a timepiece, is worth all we ask for the complete apparatus.

Fifty extra dials with each clock.

List No.	Price.
1718 Clock, complete, without batteries.....	\$13 00
1719 Extra Dials, per 100	1 00



List No. 1715.

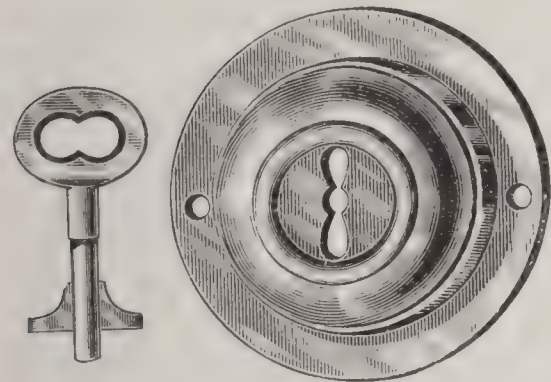
ANNUNCIATOR DROPS.

Our Annunciator Drops are made from the best Norway Iron, and nickel-plated. The tag holder is made from brass,

It operates on one cell of battery and does not drop until the current is applied, making it a very desirable apparatus for ships, railroad cars, elevators, etc.

We make large quantities of these drops and are prepared to quote low prices, mounted or unmounted.

List No.	Price.
1715 Annunciator Drop, as illustrated.....	\$0 50



List No. 1716.

WATCHMAN'S KEY SWITCH

For Watchman's Time Detectors.

By using this Switch, no one but proper party with key can record visit on the main instrument.

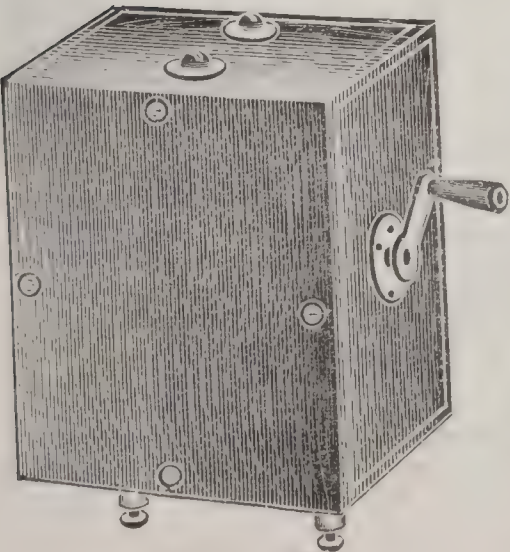
List No.	Price.
1716 Cast Bronze, complete (including key).....	\$1 00
Special finishes to order.	

WATCHMAN'S FLUSH KEY SWITCH FOR IRON OUTLET BOXES.

These Switches are made of cast Bronze and set flush with wall. Can be finished to match hardware.

Size, 4 inches diameter.

List No.	Price.
1717 Switch, complete (including Key)	\$2 00



List No. 1736.

MAGNETO GENERATOR.

For Watchman's Time Detector.

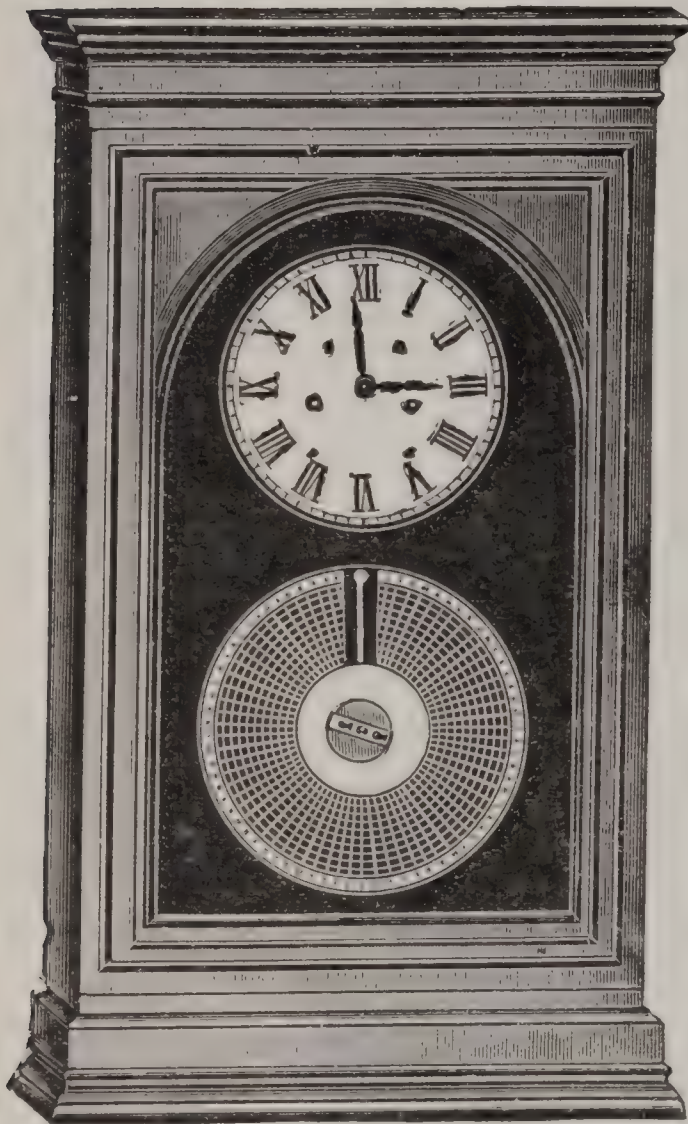
This Magneto is intended for use with detectors listed on page 138, in place of batteries.

The handle is detachable and can be carried by watchman the same as a key.

List No.	Price.
1736 Magneto, complete, Oak finish	\$4 00

WATCHMAN'S TIME DETECTORS.

For Battery or Magneto System.



It records the exact time of a watchman's visit to each station on his route, compelling him to make regular inspections of every part of the premises.

Handsomely finished oak case, having good eight day movement with 10-inch dial.

An important feature of this Time Detector is, that the circuit is automatically broken in the instrument as soon as the record is made. So that if key is kept in contact at the station the paper dial will not be torn.

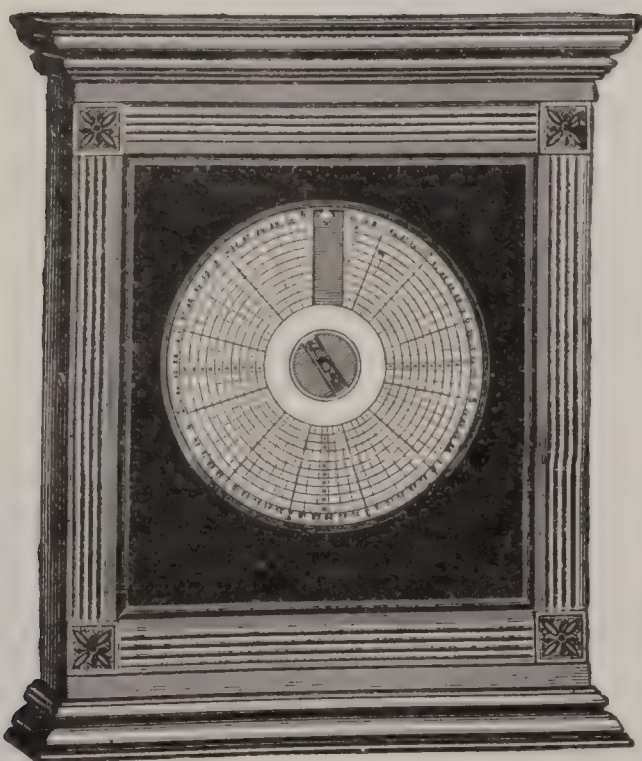
List No.		Price.
1728	4 Stations.....	\$90.00
1765	5 " 	95.00
1729	6 " 	100.00
1766	7 " 	105.00
1730	8 " 	110.00
1767	9 " 	115.00
1731	10 " 	120.00

Extra Stations, per station, \$3.00

Where more than twenty stations are required two recording dials will be used.

A year's supply of dials included in these prices.

Extra paper dials up to 10 stations per M.....	\$15.00
15 Stations, per M.....	18.00
20 Stations, per M.....	22.50



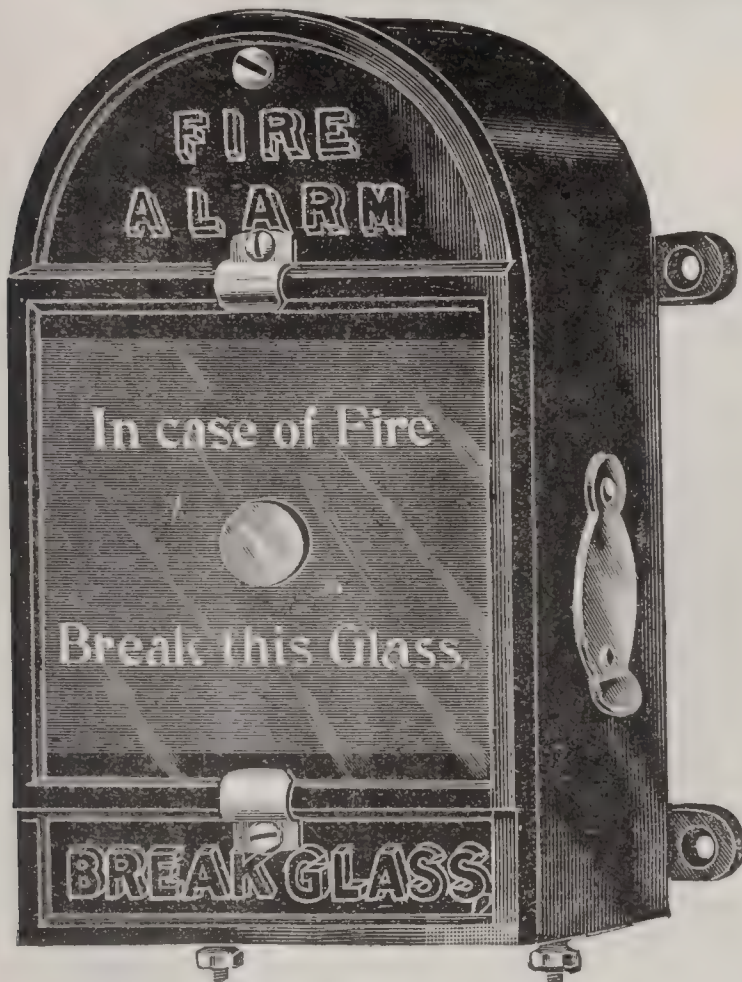
Same as No. 1728 without time piece.

List No.		Price.
1720	4 Stations.....	\$65.00
1768	5 " 	70.00
1721	6 " 	75.00
1769	7 " 	80.00
1722	8 " 	85.00
1784	9 " 	90.00
1723	10 " 	95.00
	Extra Stations.....	2.50

A year's supply of dials included in these prices.

When ordering, specify whether for Battery or Magneto Circuit. Battery circuit will operate satisfactorily on lines up to 300 feet in length. For longer circuit use Magneto Generators.

SIGNAL FIRE ALARM BOX.



List No. 1744.

Neat Japanned Iron box, size 6 x 4½ x 3 inches, fitted with slow motion mechanism, which, when released, will repeat the number five times. Can be arranged so as to release the mechanism either by *breaking of glass* or by *pulling down lever* at the side of box.

Each box is arranged to give different numbers to locate the point from which alarm is sent

Is specially constructed for use with any electro mechanical gong.

This fire alarm box is also used for outdoor alarms when encased in our special weather and dust-proof iron case with spring lock. Size of case, 8½ x 7½ x 4 inches.

List No.		Price.
1744	Fire Alarm Box as illustrated.....each,	\$10.50
1745	" " " with Weatherproof Case..... "	20.50

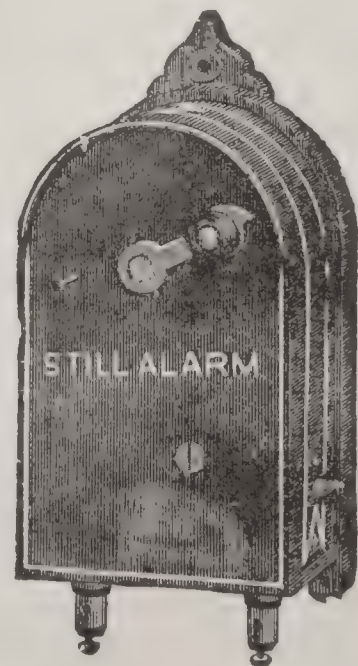
POSTAL DIST. CALL BOX. SIMPLE FIRE ALARM DIST. BOX.



List No. 1742.

Furnished without name on front of box if desired.

List No.		Price.
1742	1 Call, open circuit.....each,	\$2 00
1743	1 " closed " "	2 00

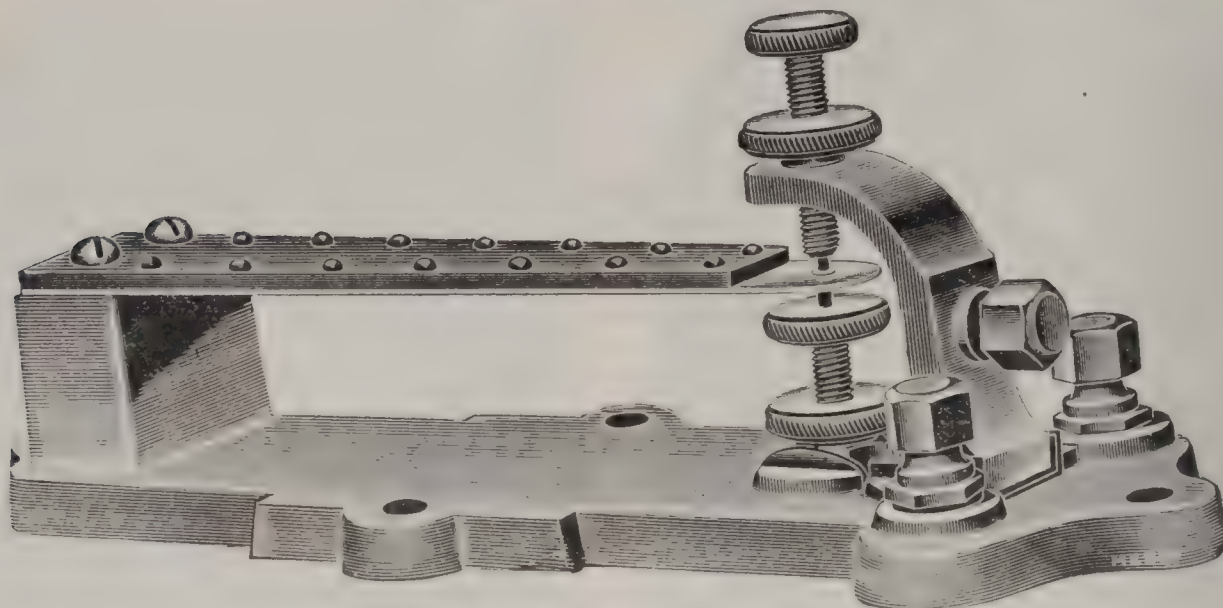


List No. 1741.

ONE CALL.

List No.		Price.
1741	Complete.....each,	\$5 00

IMPROVED ADJUSTABLE THERMOSTAT.



List No. 1673.

This Thermostat can be set for any desired degree of heat or cold, and will make electrical contact on the rise or fall of temperature.

Call bells or other electrical apparatus can be connected in the circuit at any desired distance from the instrument.

Used for fire alarm, hot houses, incubators and many other places where uniform temperature is required.

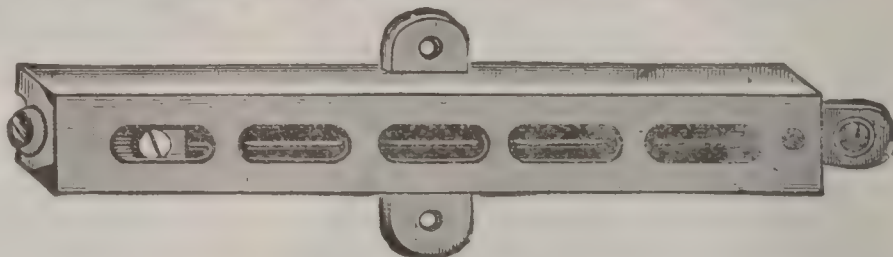
List No.

Price.

1673 Adjustable Thermostat.....each, \$3.00

AUTOMATIC FIRE ALARM THERMOSTAT.

This Thermostat is adjustable to any degree of heat, but when not otherwise ordered, are set at 125° Fahrenheit.

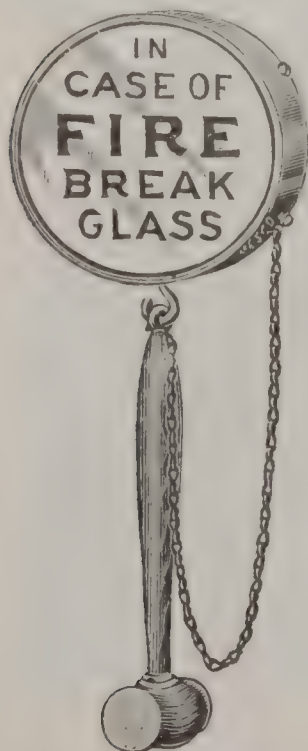


List No. 1653.

List No.

Price.

1653 Automatic Thermostat.....\$1.00



List No. 1652.

FIRE ALARM BOX.

This device is used in hotels and factories to give notice in case of fire. All that is necessary is to break the glass with the hammer. The contact spring, which is held in place by the glass, is then released, closing the circuit, and immediately giving the signal at some central point. The case of the box is of brass, nickel-plated; the hammer is solid iron, and steel jack chain is used to attach hammer to the box.

List No.

Price.

1652 Fire Alarm Box.....each, \$0.70

ELECTRIC ALARM CLOCK.



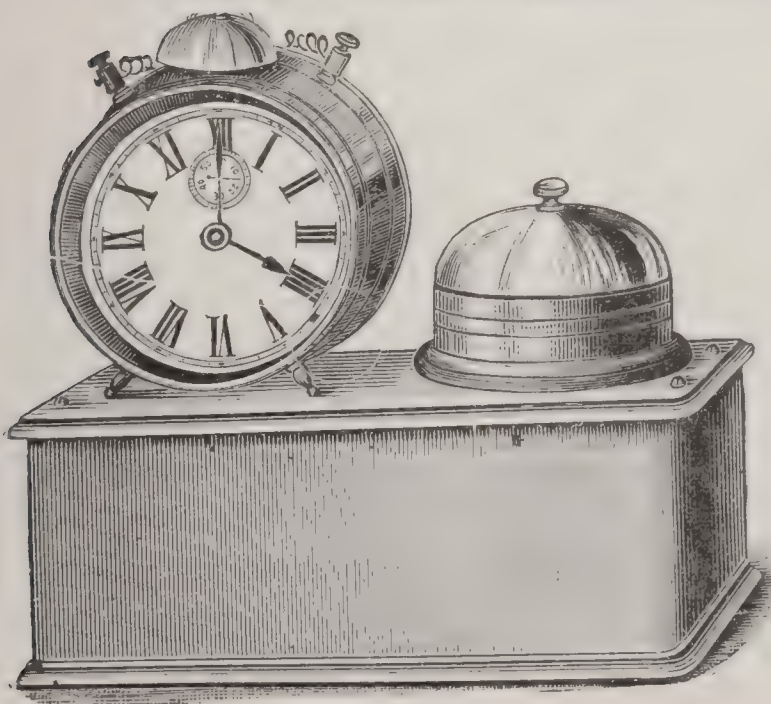
List No. 1748.

List No.		Price.
1748	Clock as shown, post connections.....each,	\$2.25
1749	“ with connections through legs of clock.... “	2.25

The “Manhattan” Clock is set in the usual manner to ring at a certain hour, and the movement of the clock throws into circuit a vibration bell which will ring for almost two hours, unless switched off. The winding of the mechanical alarm is not necessary, unless it is desired to have both electric and mechanical alarms ring at same time.

The clock can be placed on a shelf or table and the bell and switch arranged near the bed. Any vibrating bell described in this book can be used with clock.

ELECTRIC ALARM CLOCK OUTFIT.



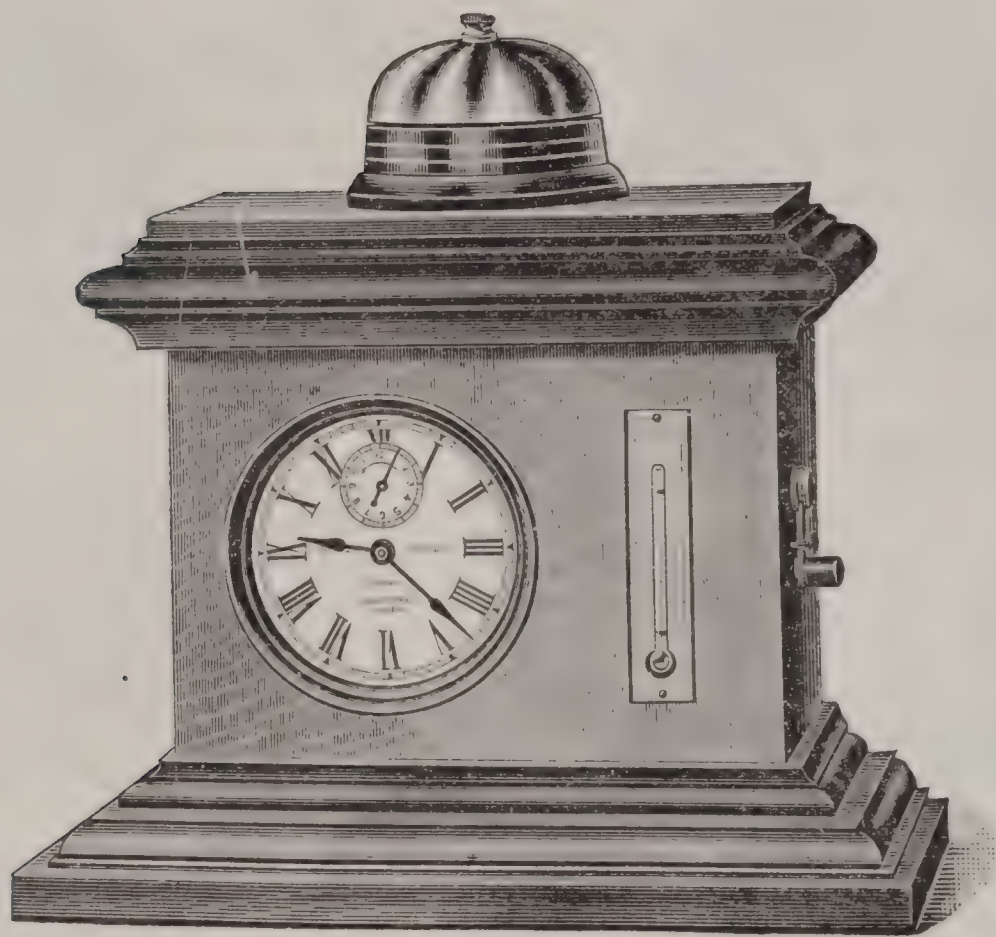
List No. 1750.

List No.		Price.
1750	Complete.....each,	\$5.00

“Manhattan” Clock mounted on a finely finished hardwood case with a 3-inch Monitor Electric Vibrating Bell.

The case contains a Mesco dry battery, which with ordinary usage will do service one or two years. The legs of clock set into small receptacles on case which are connected to the battery and bell and it is only necessary to remove the clock from these connections to open the circuit and stop the bell from ringing.

ELECTRIC ALARM CLOCK OUTFIT.



List No. 1755.

This outfit consists of our popular Alarm Clock, set in an ornamental, finely finished Oak cabinet, with door in rear. The clock can be wound without removing from cabinet. The alarm is given by monitor electric bell, mounted on top of cabinet. The dry battery is enclosed in case. A neat and accurate thermometer is attached to front of cabinet. This is a very neat and serviceable outfit and is appropriate for any room.

List No.	Price.
1755 Complete.....	each, \$6.00

When ordering give List Number and Page.

ELECTRIC ALARM CLOCK OUTFIT.



List No. 1758.

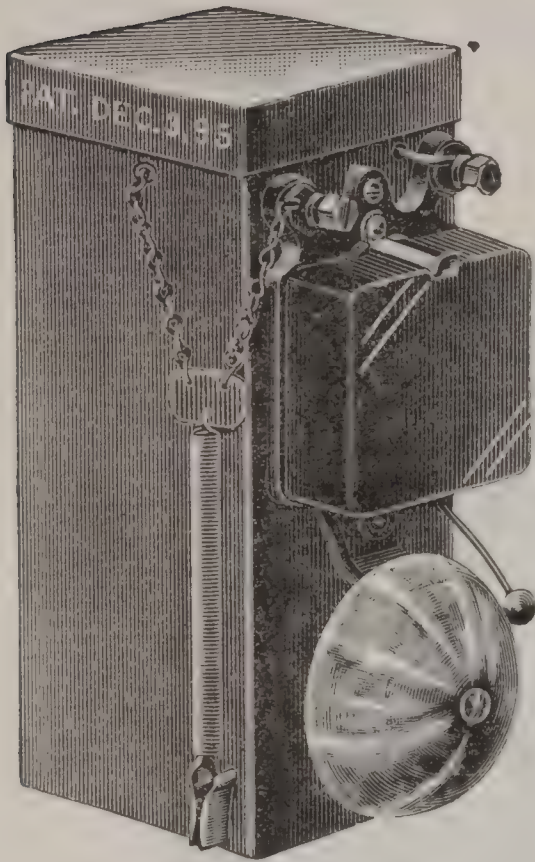
This is our most popular Electric Alarm Clock Outfit. The case is of quartered Oak, nicely finished, with Mesco Dry Battery inside, and Electric Bell on the outside of rear. A nickel-plated switch is fitted on one end for disconnecting the battery and bell circuit. The clock is securely fastened to the case so that outfit can be carried by the ring on top of clock.

This is a very neat, compact and reliable Early Riser's Outfit and is better value for the price asked than is given with any similar outfit manufactured.

We make them in large quantities which enables us to quote a very reasonable price.

List No.	Price.
1758 Early Riser's Outfit, complete.....	\$4.00

ELECTRIC ALARM ATTACHMENT.



List No. 1759.

Cut shows Electric Call Bell mounted on box which contains a cell of Mesco Dry Battery.

A sure cure for oversleeping, as the electric bell rings until the attachment is disconnected, which cannot be very easily done without getting out of bed.

Can be attached to any ordinary mechanical alarm clock, and, as this is one of our specialties, we make a very low price for this outfit. Weight about three pounds.

The Operation of this electric attachment is very simple. Wind up the alarm key to clock three or four half turns. Place the spring clamp on the key. When the mechanical alarm goes off, the two chain electrodes will twist and close the electric circuit. The bell rings until the clamp is removed.

This is the best selling Electric Novelty on the market.

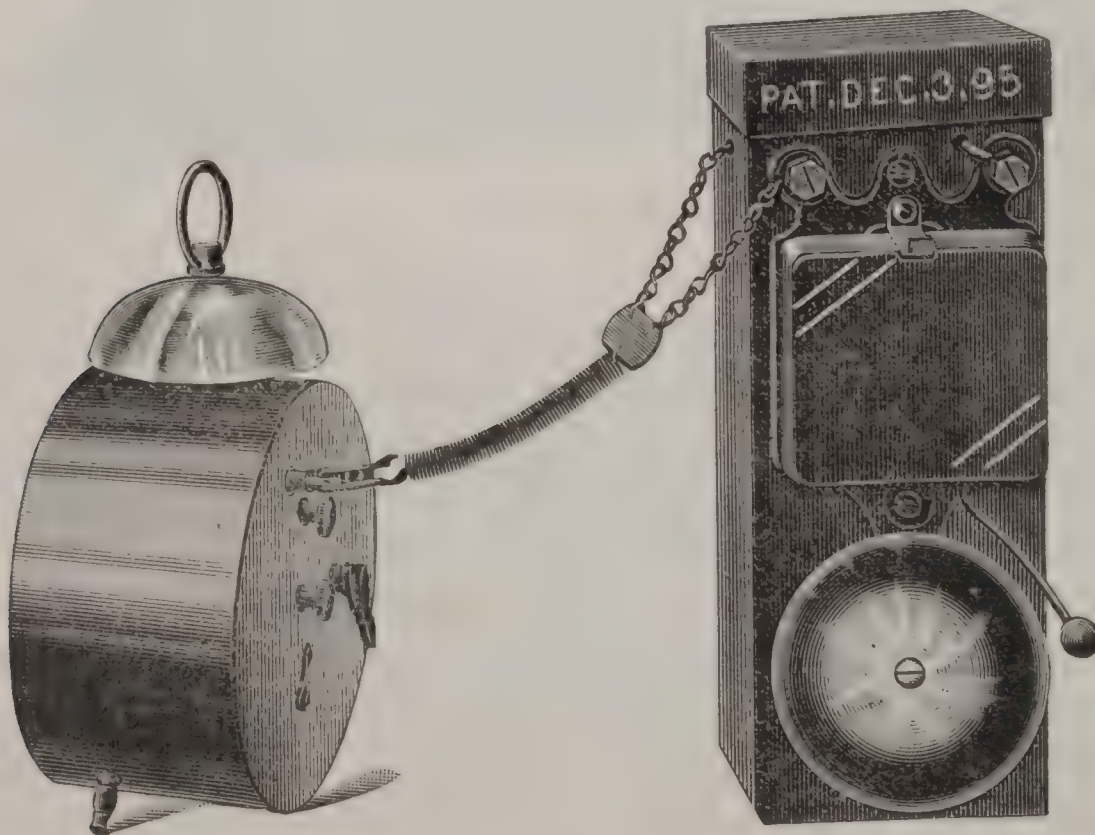
The ordinary mechanical alarm clock cannot be depended upon to wake up a hard sleeper, and many a man has lost a good position by being late.

List No.

Price.

1759 Without Clock.....\$1.50

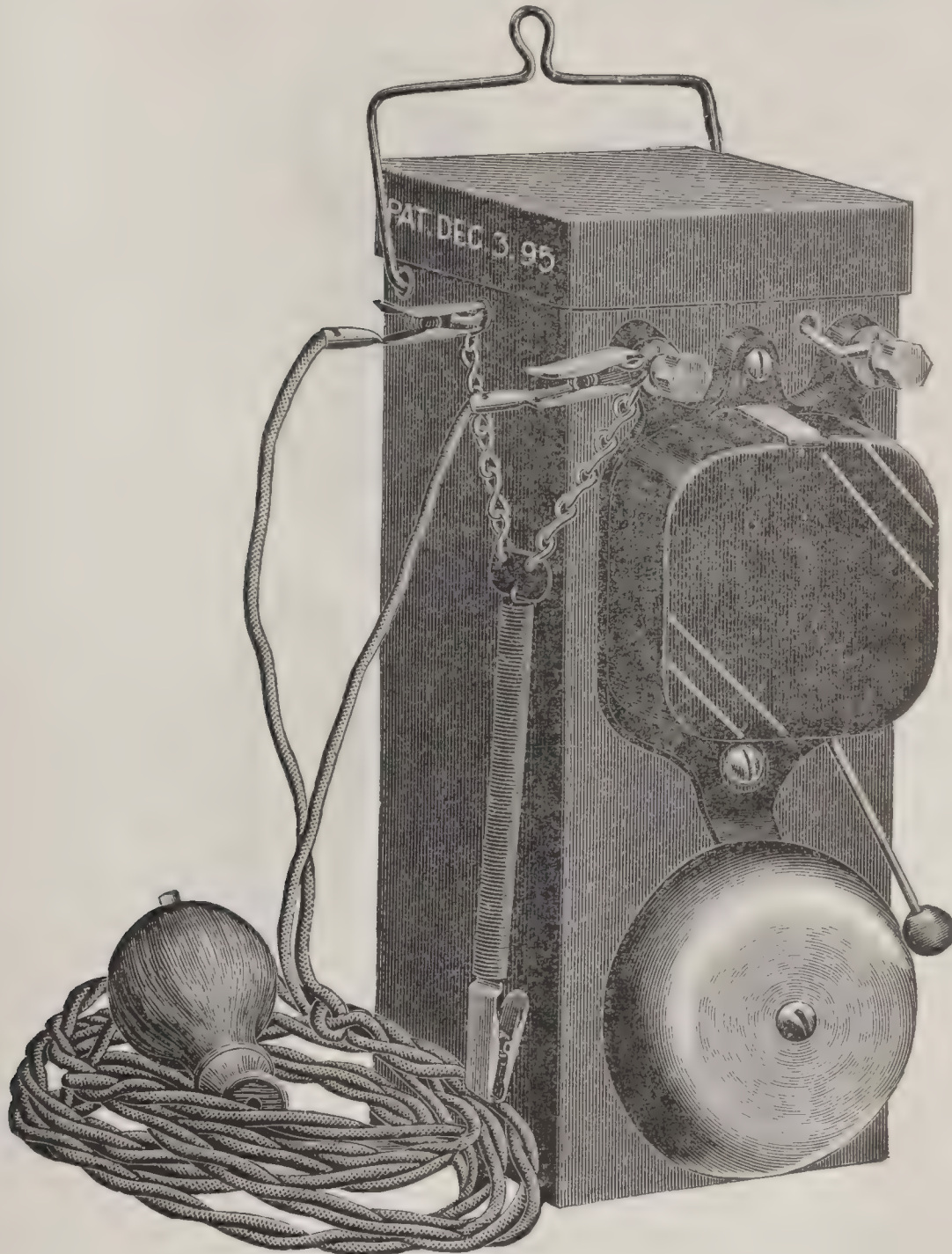
The price does not include the clock, but we will furnish a nickel alarm clock, at \$1.00 (extra).



Cut shows Outfit connected up to alarm clock ready for duty.

COMBINATION PORTABLE CALL BELL OUTFIT

and ELECTRIC ALARM CLOCK ATTACHMENT.



List No. 1760.

AS AN ALARM ATTACHMENT.—The spiral spring (see illustration) has a spring clasp at the end. The clasp can be attached to the winding key of any Mechanical Alarm Clock. When the alarm goes off, the two chains, as shown in cut, are twisted together, making electrical contact and the bell rings until the clasp is removed from the key or winding lever. There will be no over sleeping when the Alarm goes off, as it is necessary to get out of bed to stop it by removing clasp.

AS A CALL BELL.—We supply six yards of double flexible conducting cord, to one end of which is attached a pear-shaped push button, to hang at the bed-side or any convenient place. The opposite ends are provided with two spring clasps, the same can be connected or detached in an instant. Can be used for many purposes, in the office, at the bed-side, for the dining-room, connecting adjoining rooms, etc., etc.

This is the best and cheapest outfit of this description ever offered.

CONSISTS OF:—One first-class electric bell, one-cell Mesco Dry Battery, case for same covered imitation leather, with swinging wire loop for hanging on nail, etc.; clasp and spiral spring connection for attaching to Mechanical Alarm Clock; 18 feet double flexible conducting cord with pear-shape push button at one end and spring clasp connectors at other end.

List No.

1760 Each

Price.

\$2.00

ELECTRIC CALL BELL OUTFIT.



List No. 1762.

CONSISTS OF:

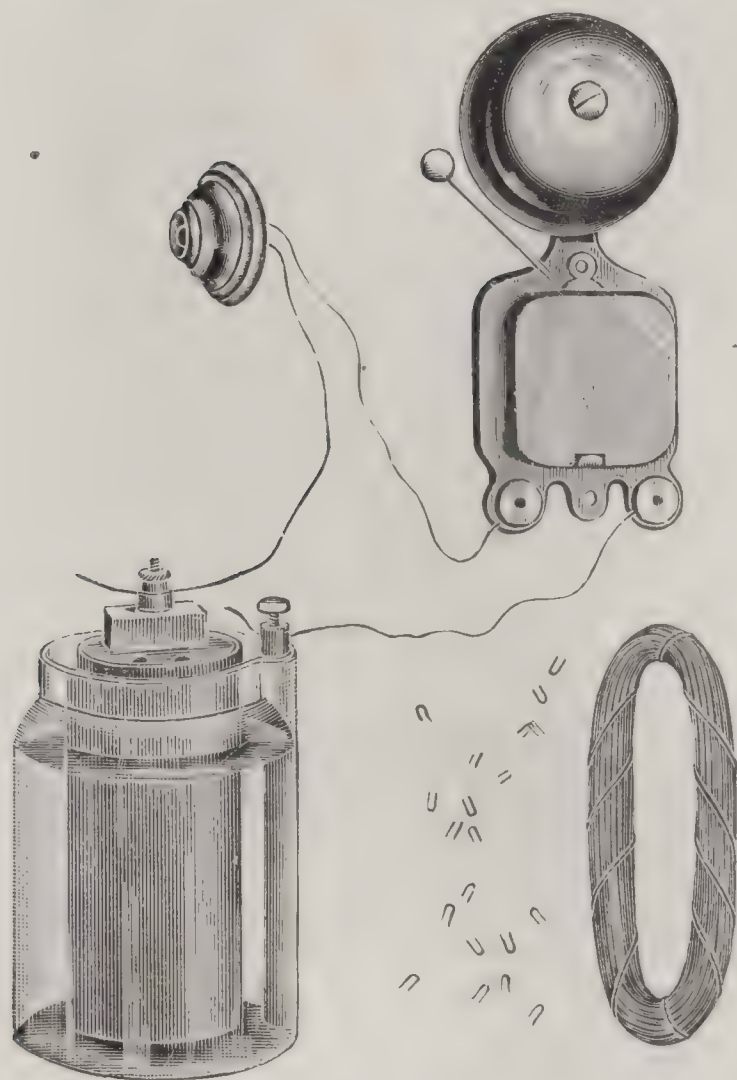
- One Iron Box Bell, 2½-inch gong
- One Cell Mesco Dry Battery.
- One Wooden Push Button.
- Fifty Feet Insulated Wire.

Sufficient staples, and **printed instructions** which will aid any person to put the outfit in successful operation.
Packed in strong strawboard box. Weighs 5 lbs. **A first-class outfit.**

List No.	Price.
1762	Call Bell Outfit, complete.....each, \$1.50

This outfit is put up especially for the Hardware Trade. Packed in a box, size 3½x7x9 inches ; labeled, with selling price blank The retail price is printed on label, \$2.50.
We invite correspondence from parties who can use these outfits in quantities as we are prepared to quote very low prices.

CALL BELL OUTFIT.



List No. 1763.

Packed in a neat, strong wooden box and labeled. Very convenient for stock or for re-shipping as everything is securely packed.

Full Directions with each Set.

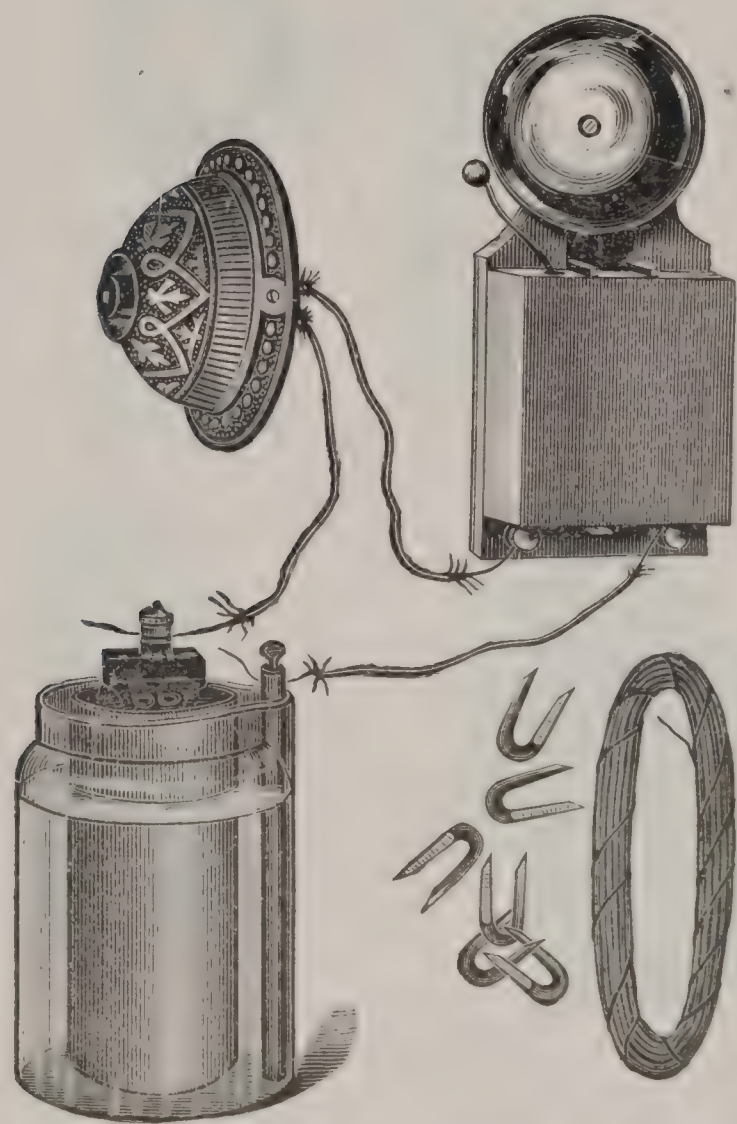
Consists of :

	Price.
One Iron Box Bell, nickel-plated gong	\$0.60
One Cell Leclanche Battery .....	.60
One Wooden Push Button .....	.10
Fifty feet Call Bell Wire .....	.20
Staples, etc .....	.05
One Box and packing same .....	.20
List No.	
1763 Call Bell Outfit, complete	\$1.75

This outfit differs only from No. 1762 in substituting Leclanche Battery for Dry.

ELECTRIC CALL BELL OUTFIT.

HOUSE CALL, ETC.



List No. 1764.

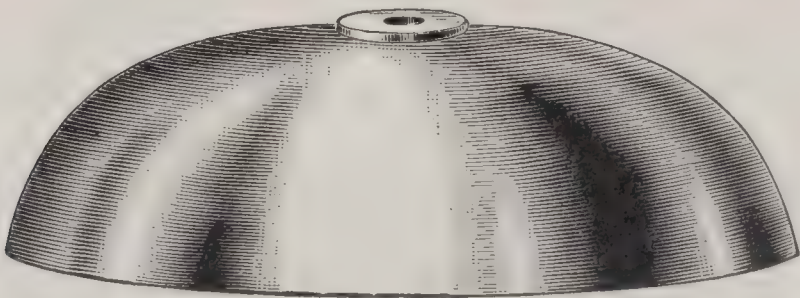
Packed in a Neat, Strong Wooden Box.

Outfit Consists of:

	Price.
1 2½-inch Wooden Box Bell, No. 1890.....	\$0.80
1 Leclanche Battery.....	.60
1 Bronze Push Button.....	.25
75 feet Annunciator Wire.....	.25
Staples, etc.....	.10
One Box and packing same.....	.20
List No.	
1764 Call Bell Outfit, complete.....	\$2.20

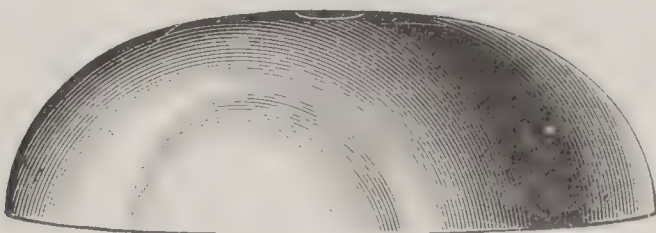
ELECTRIC BELL OUTFITS MADE UP TO ORDER FOR ANY TRADE.

REGULAR CAST GONGS.



List No.	Ins.	Price.	List No.	Ins.	Price.
1785	2½, nickel-plated, each,	\$0.12	1793	9, nickel-plated, each,	\$2.58
1786	3, " "	.20	1794	10, " "	2.82
1787	3½, " "	.26	1796	12, " "	3.94
1788	4, " "	.31	1797	14, " "	7.70
1789	5, " "	.54	1798	15, " "	8.80
1790	6, " "	.86	1799	16, " "	10.60
1791	7, " "	1.18	1800	18, " "	15.20
1792	8, " "	1.70			

ORDINARY STAMPED GONGS.



Made from Steel, Nickel-Plated on Copper.

List No.	Ins.	Price.	List No.	Ins.	Price.
1805	2½, nickel-plated, each,	\$0.08	1808	5, nickel-plated, each,	\$0.40
1806	3, " "	.10	1809	6, " "	.72
1807	4, " "	.20			

FANCY NICKEL-PLATED GONGS.

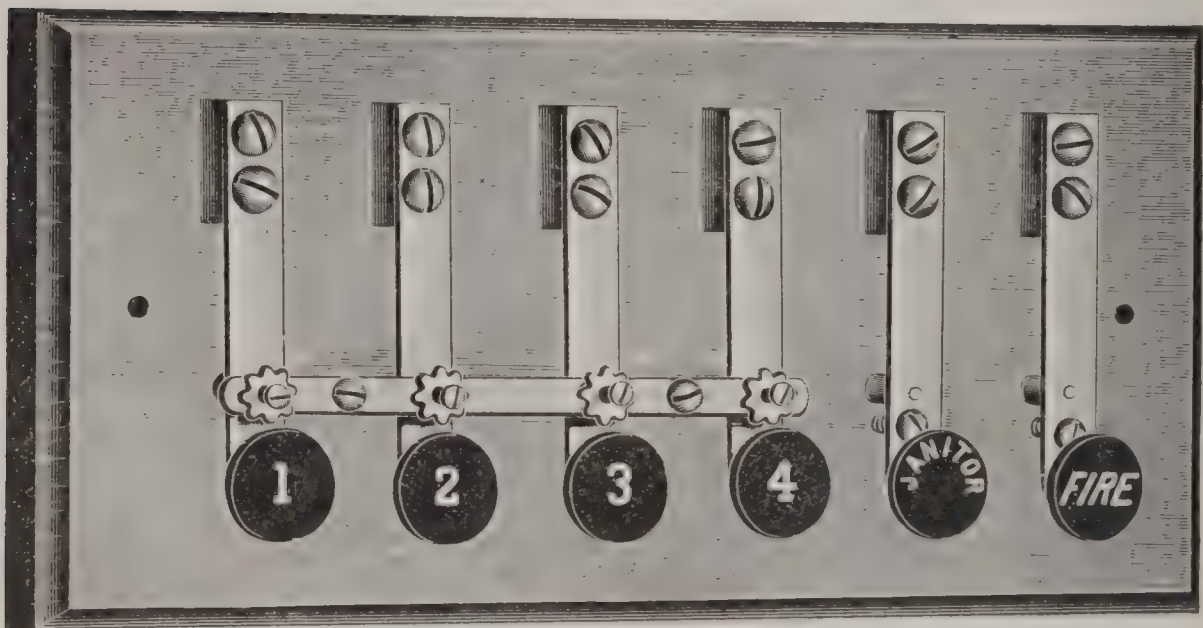
PRICE, GONGS ONLY.

List No.	Inches.	Price.
1770	Rectangular, 1⅜x1⅞, nickel-plated.....each,	\$0.25
1771	" 1¾x2½, " .....	.36
1772	Mikado, 2½, " .....	.25
1773	Sleigh, 1⅞, " .....	.25
1774	Tea, 2⅜, " .....	.25
1775	" 3⅛, " .....	.48
1776	Swiss, 2½, " .....	.25
1777	" 2¾, " .....	.33
1778	Dome, 2⅜, " .....	.25
1779	" 2⅝, " .....	.30
1780	Garland, 1⅞, " .....	.25
1781	Wood, 2½, " .....	.25

See Page 150 for Illustrations of Fancy Gongs.

BELL SUPPLIES.

STRAP KEYS FOR SCHOOL SIGNALS.

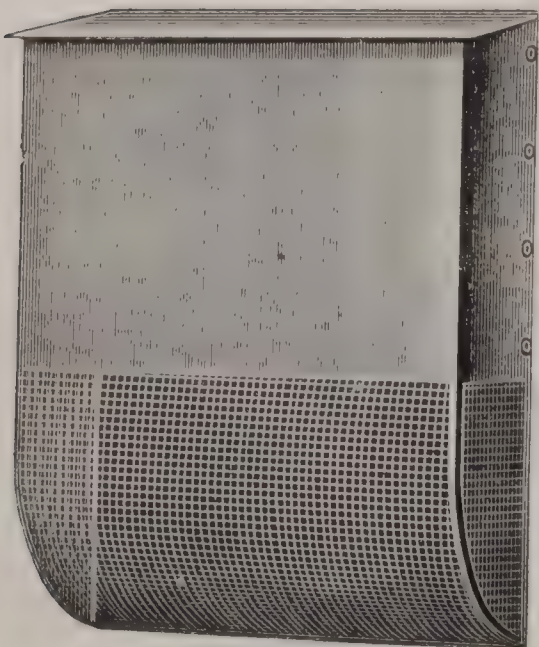


This type of Strap Key is used in all New York City Schools and is being adopted for school use by many others. They can be mounted in rows on top of desk or on wood panel to place on wall, wood base can be furnished to match trim.

The keys have heavy platinum contacts and the knobs are of hard rubber and can be marked to suit.

List No.	Price.
1145 Strap Keys, each.....	\$1 50

WEATHERPROOF HOOD.



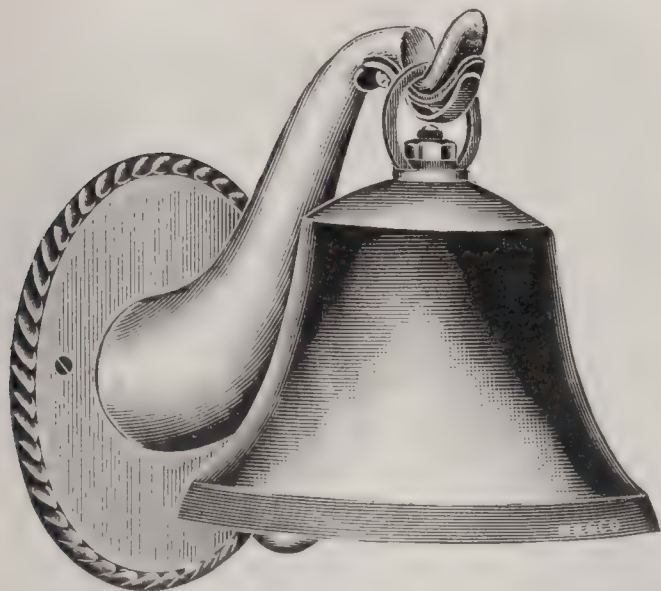
These Hoods are used over Pivoted Armature Bells placed on the outside of buildings or other exposed positions.

Made of galvanized iron and nicely finished.

We list three sizes, other sizes made to order.

List No.	Price.
1146 Hood for 8 inch bell.....	\$4 50
1147 " " 10 " "	5 00
1148 " " 12 " "	5 50

THE ELITE BRACKET BELL.



List No. 1904.

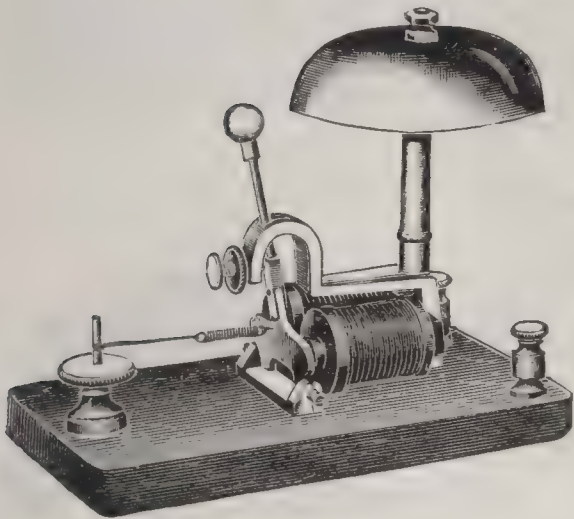
The "Elite" is the most perfect bracket bell in appearance and efficiency ever manufactured. The gong is made of best bell metal with all of the outside surface and the lower half of the inside polished and plated. The vibrating mechanism is simple and reliable and will operate satisfactorily with two to five cells of battery. Circuits are arranged through the bracket which avoids the necessity of disconnecting wires in the bell to remove it from the bracket. The size of gong at the opening is 4½ inches. Very neat and symmetrical.

List No. Price.
1904 Nickel-Plated.each, \$3.00
All other finishes 40 cents Extra Net.

DISTRICT SIGNAL BELL.

NEW DESIGN. SPECIAL
IMPROVEMENTS.

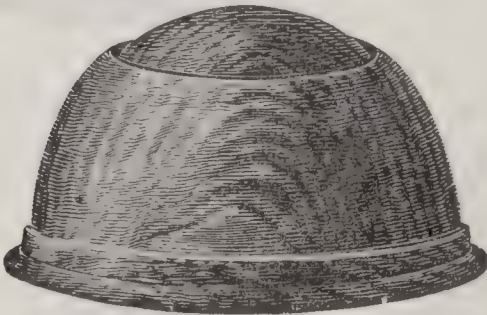
The Best District Signal Bell Made.
MOUNTED ON A POLISHED MAHOGANY BASE.



List No. 1912.

1912 3-inch.....each, \$2.50
1913 6 " " 3.00

BEE HIVE BUZZER.



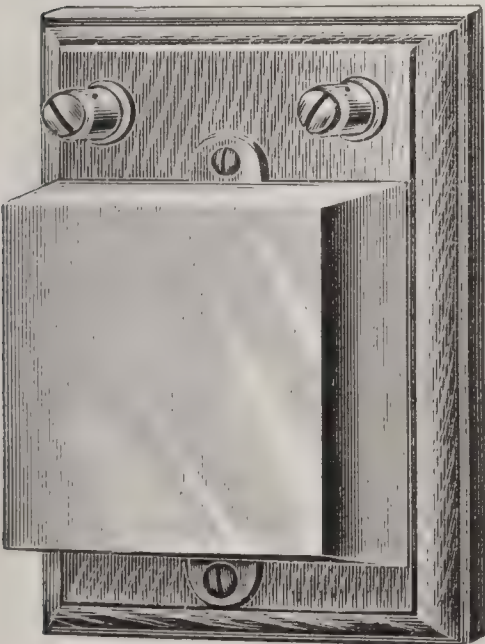
List No. 1930.

CUT HALF SIZE.

List No. Price.
1930 Oak or Ash.....each, \$0.75

WOOD BASE BUZZER.

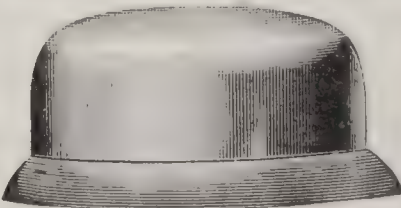
Polished Nickel-Plated Cover.



List No. 1919.

List No. Price.
1919 Each.....\$0.80

WATCH CASE BUZZER.

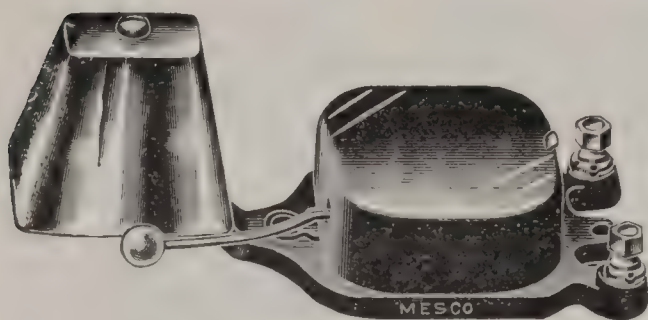


List No. 1936.

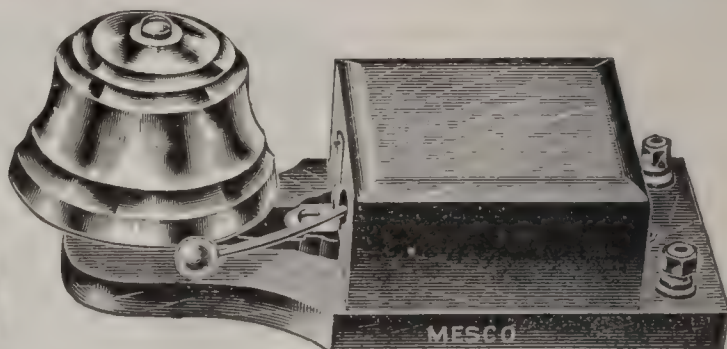
SIZE, 7/8x1¾ INCHES.

List No. Price.
1936 With nickel-plated cap, each, \$0.64

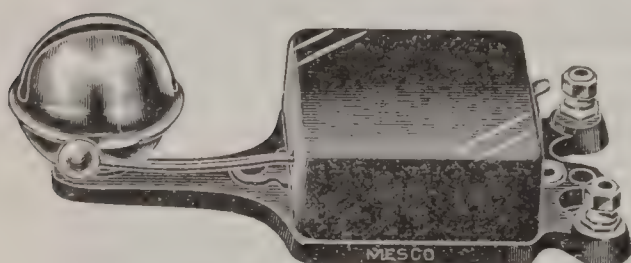
BELLS WITH FANCY NICKEL-PLATED GONGS.



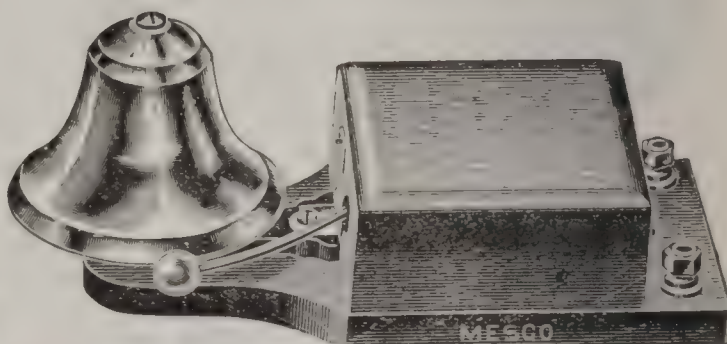
List No. 1815.
Rectangular ($1\frac{1}{2} \times 2$ inches).



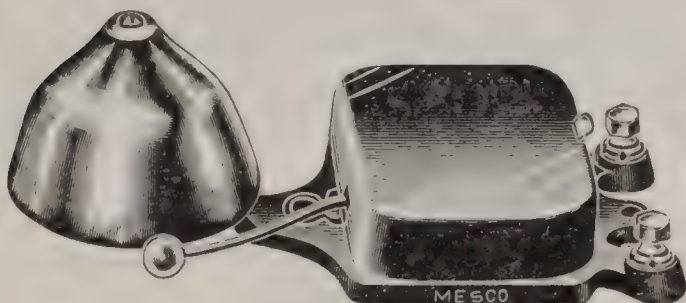
List No. 1819.
Mikado ($2\frac{1}{2}$ inches diameter).



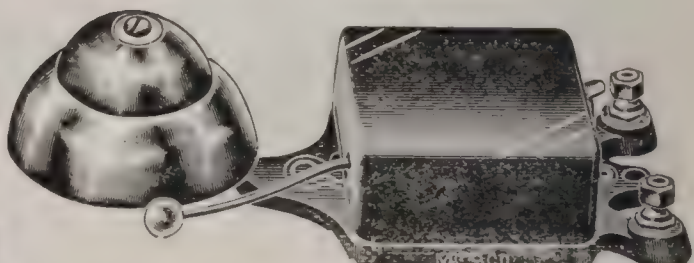
List No. 1816.
Sleigh ($1\frac{1}{2}$ inches diameter).



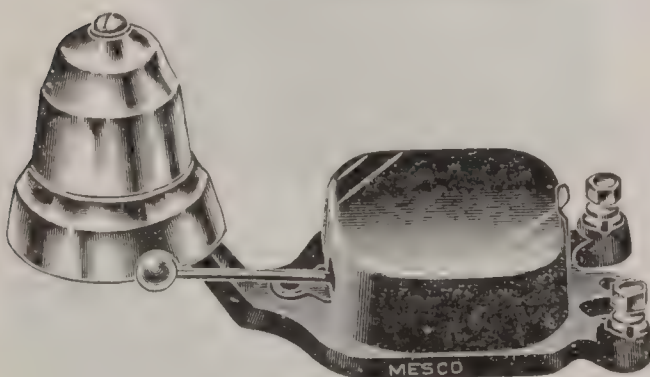
List No. 1821.
Tea ($2\frac{3}{8}$ inches diameter).



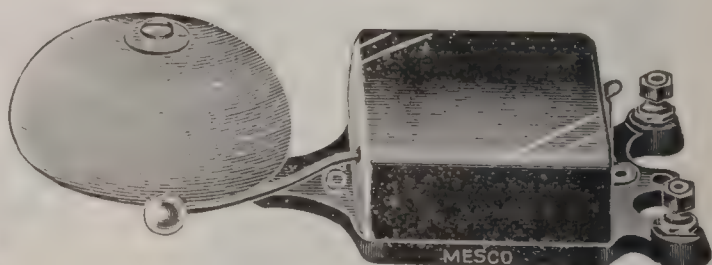
List No. 1817.
Swiss ($2\frac{1}{2}$ inches diameter).



List No. 1823.
Dome (3 inches diameter).



List No. 1818.
Garland (2 inches diameter).



List No. 1824.
Wood Gong ($2\frac{1}{2}$ inches diameter).

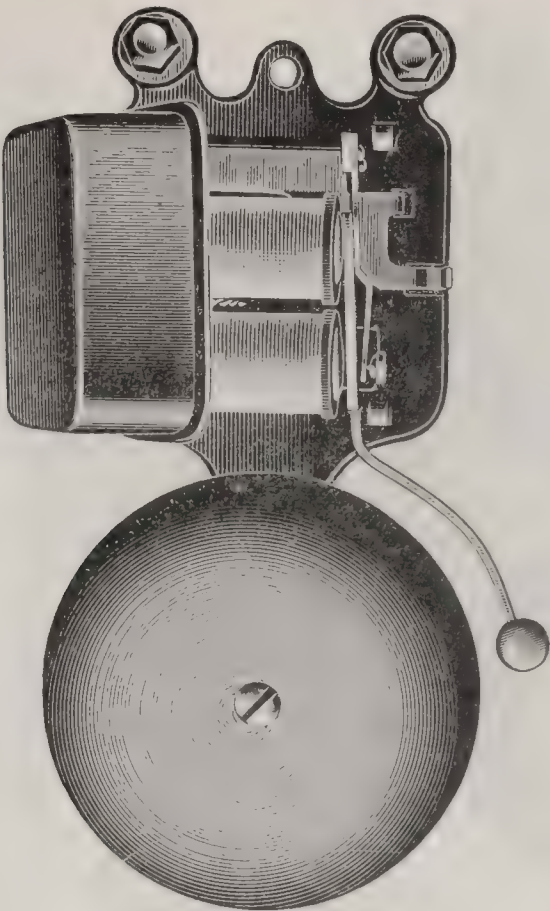
List No.		Price.
1815	Rectangular, $1\frac{1}{2} \times 2$ inches, Iron Box,	\$0 78
1814	" " " " Wood " "	1 00
1816	Sleigh, $1\frac{1}{2}$ " " " "	78
1826	" " " " Wood " "	1 00
1817	Swiss, $2\frac{1}{2}$ " " " "	78
1827	" " " " Wood " "	1 00
1818	Garland, 2 " " " "	78
1829	" " " " Wood " "	1 00

List No.		Price.
1819	Mikado, $2\frac{1}{2}$ inches, Wood Box,	\$1 00
1820	" " " " Iron " "	78
1821	Tea, $2\frac{3}{8}$ " " " "	1 00
1822	" " " " Iron " "	78
1823	Dome, $2\frac{3}{8}$ " " " "	78
1828	" " " " Wood " "	1 00
1824	Wood, $2\frac{1}{2}$ " " " "	78
1825	" " " " Wood " "	1 00

For price of unmounted Gongs, see page 149.

Special size Fancy Gongs mounted on any of the different style frames listed in this Catalogue to order.

NONPAREIL BELL AND BUZZER.



NEW DESIGN.

UP-TO-DATE.

List No. 1846.

The "Nonpareil" is the best moderate priced bell ever produced. It is well made, strong, neat and very reliable.

It will ring satisfactorily with one cell of battery, and will not stick or buzz with six cells connected.

The plate for holding the armature and magnets is stamped from one piece of metal and securely fastened to the frame. The vibrating contact post is attached to the end of the magnet thus confining all of the working parts to the stamped plate which insures the most accurate alignment and permanency of adjustment of all the operating parts, and also obviates the possibility of leaky or loose contacts, as there are no screws or pivots in the path of the electrical current. The binding posts are the latest non-turning type.

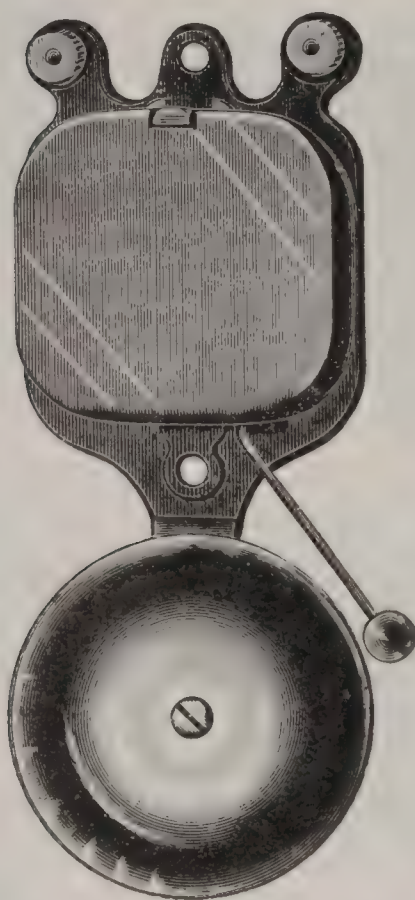
The cover is of light pressed steel and neatly Japanned. The clamps for holding the cover to the frame are ingeniously arranged on the sides by extensions from the plate which holds the armature and magnets. A slight pressure of the fingers on each side of the cover will disengage it from the clamps.

A thoroughly first-class and reliable bell at a reasonable price.

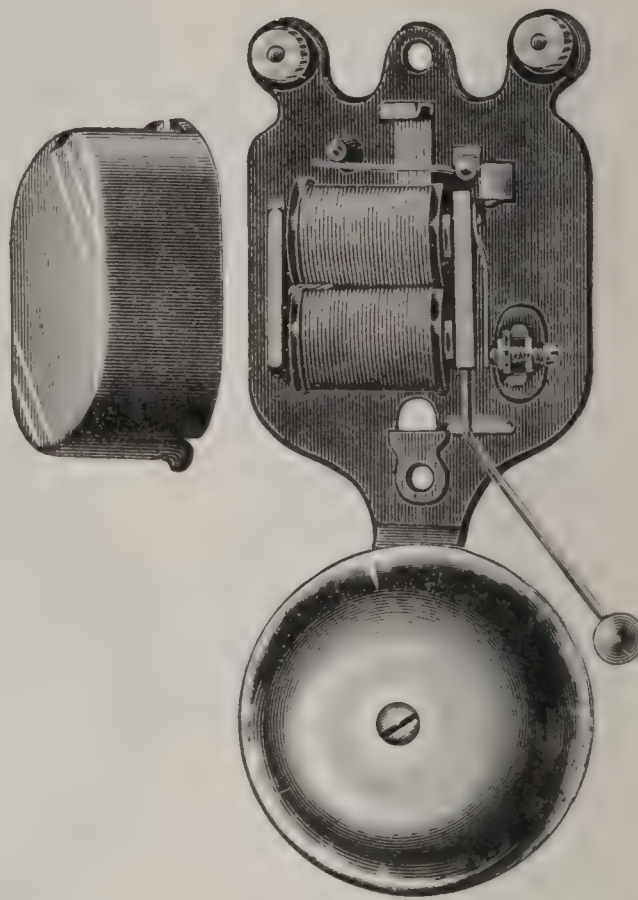
List No.		Price.
1845	Nonpareil Bell, 2½-inch Gong.....each,	\$0.44
1846	" " 3 " " .....	.46
1847	" " 4 " " .....	.62
1848	" Buzzer .....	.42

The Nonpareil Buzzer is the same as the bell without the gong, the extension for holding the gong and the striking rod and ball.

UTILITY IRON BOX BELL AND BUZZER.



List No. 1830.



List No. 1830.

BELL WITH CAP REMOVED.

The "Utility" is a well constructed, high-grade double adjustment Iron Box Bell.

Binding posts and all parts held by screws, are practically rigid and not liable to become loose.

Armature is pivoted and tension of same adjustable for one or more batteries.

Only the softest cast iron is used and the danger of polarizing is reduced to a minimum.

The workmanship and finish is unexcelled.

Copper Caps are put on the end of magnet core, to avoid any possibility of armature sticking.

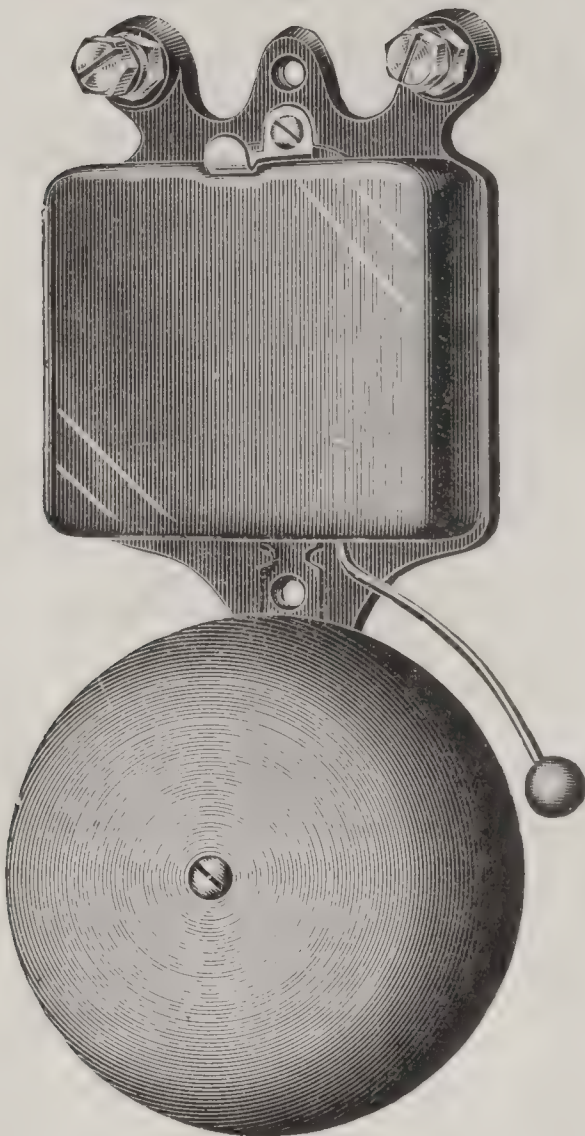
Highly polished nickel-plated gongs are used.

List No.		Price.
1830	Utility Bell, 2½-inch Gong.....each,	\$0.48
1831	" " 3 " " .....	.50
1832	" " 4 " " .....	.68
1833	Utility Buzzer.....	.46

The Utility Buzzer is similar to the bell, with gong extension, gong and striking rod eliminated.

No. 189.

IRON BOX BELL AND BUZZER.

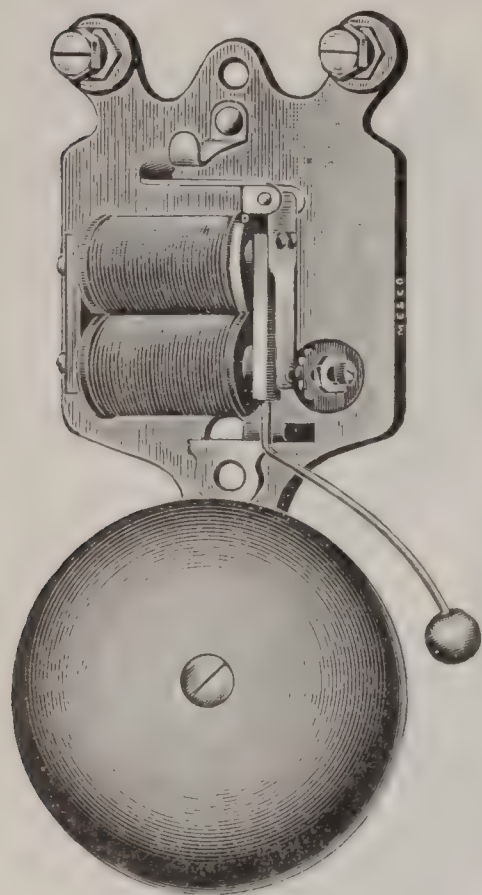


The No. 189 is a reliable, easy ringing bell with double adjustment, can be operated on one or more cells of battery.

It has our patented non-turning binding and adjusting posts. The contact screw is firmly held by lock nut in double post which makes it impossible for it to get out of adjustment. The magnet cores are copper capped and armature will not stick.

List No.		Price.
1835	2½-inch, No. 189 Bell	\$0 48
1836	3 " " "	50
1837	4 " " "	68
	No. 189 Buzzer	46

CRESCENT IRON BOX BELL AND BUZZER.



List No. 1850.
COVER REMOVED.

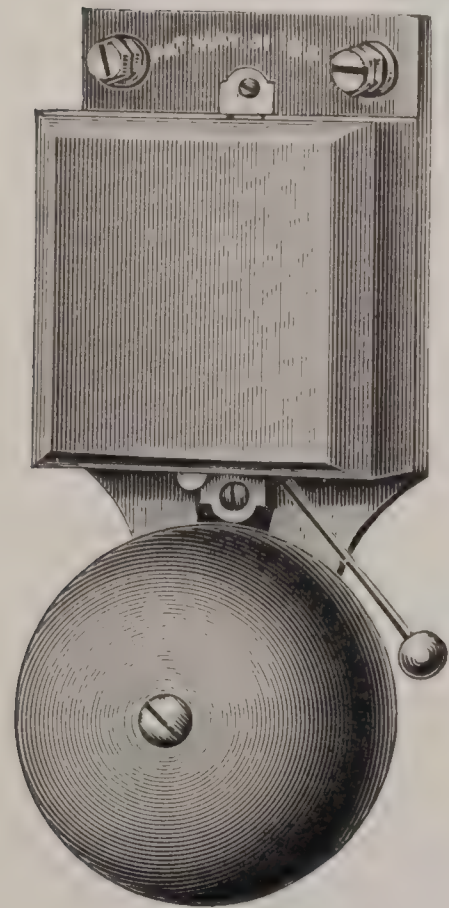
This bell has pivoted armature, double adjustment, patented non-turning binding posts and specially designed non-turning contact posts.

The operating mechanism and magnets are constructed to endure long and hard service. It will ring with one cell of battery and can be adjusted to work satisfactorily with 5 or 6 cells connected. Gongs are nickel-plated. It is a very good bell at a moderate price.

List No.		Price.
1850	Crescent Bell, 2½ inch gong, each,	\$0.54
1851	" " 3 " " " "	.56
1852	" " 4 " " " "	.72
1853	" " 5 " " " "	1.00
1854	Crescent Buzzer.....	.52

The construction of the buzzer is similar to the Crescent Bell, with gong extension and striking rod eliminated.

CRESCENDO WOOD BOX BELL.



List No. 1841.

This is a very neat, reliable and well constructed wood box bell. Our patented non-turning contact and binding posts are used. Trim-mings are all nickel-plated. A back spring is used on the armature making a very easy method of adjustment for operating with one to five cells of battery. The cases are well constructed and neatly finished in Ash, Oak, Walnut or Cherry. Gongs are nickel-plated.

List No.		Price.
1841	Crescendo Bell, 2½ inch Gong, each,	\$0.70
1842	" " 3 " " " "	.72
1843	" " 4 " " " "	.92

IMPERIAL IRON BOX BELL AND BUZZER.

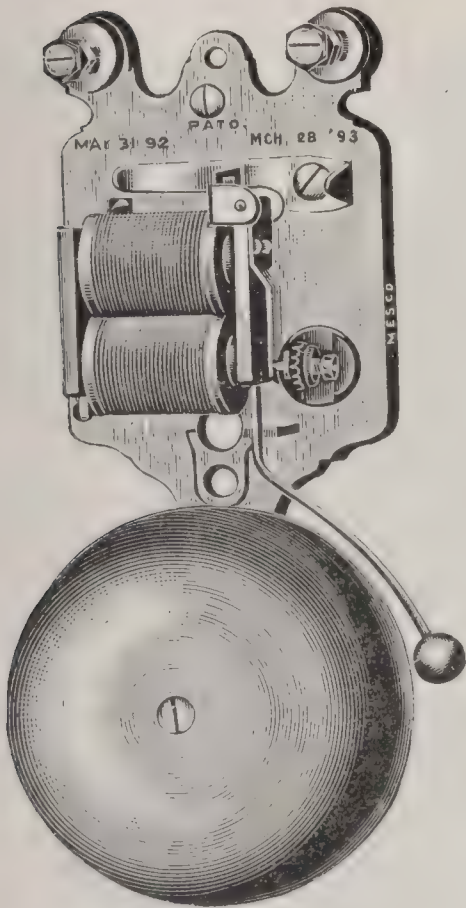
THE BEST MADE.

The Imperial is the acme of perfection in iron box bells. Every part is made from the best selected materials, and the utmost care is maintained to make it the most serviceable and best finished iron box bell ever produced.

The armature magnets, vibrating spring, striking rod and ball and contact posts are specially constructed for this type of bell exclusively with a view of minimizing bell troubles.

Pure hardened platinum is used for vibrating contacts.

The 2½ and 3 inch sizes are pivoted armature and fitted with our patented lever back adjustment, the use of which is confined exclusively to our Imperial and Monarch Iron and Wood Box Bells. The 4, 5 and 6 inch sizes have larger magnets, heavier frames and operating mechanism and are fitted with spring armature.



List No. 1870.
WITH COVER REMOVED.

List No.		Price.
1870	Imperial Bell, 2½ inch gong...each,	\$0.72
1871	" " 3 " " " "	.74
1885	" " 4 " " " "	.90
1886	" " 5 " " " "	1.30
1887	" " 6 " " " "	1.50
1888	Imperial Buzzer.....	.70

The operating mechanism of the Imperial Buzzer is similar to the 2½ inch Imperial Bell without the striking rod, extension and gong.

MONARCH WOOD BOX BELL.

The operating mechanism of the Monarch Wood Box Bell is similar to the Imperial Iron Box.

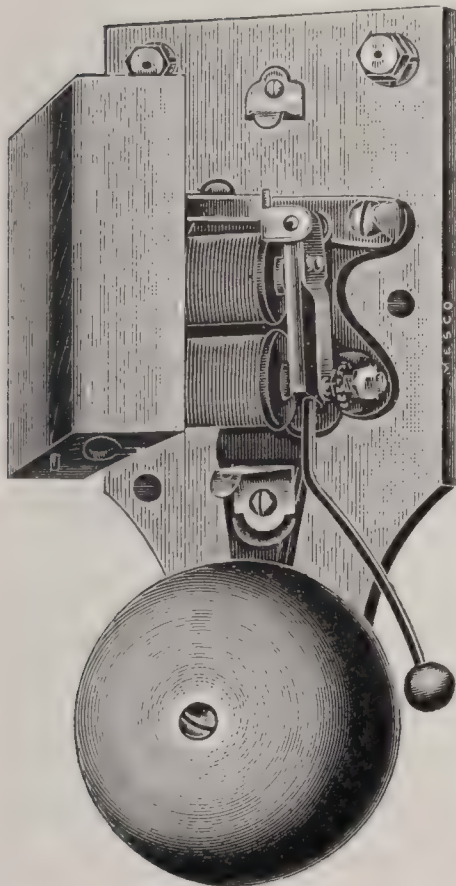
The best obtainable material and workmanship is used.

Hardened platinum contact points.

The 2½ and 3 inch sizes are pivoted armature with patented lever back adjustment. The 4, 5 and 6 inch sizes have larger operating mechanism, frames and magnets.

The woodwork is made from selected Ash, Oak, Walnut and Cherry, neatly finished and polished. All metal trimmings are nickel-plated.

The most reliable Wood Box Bell manufactured.

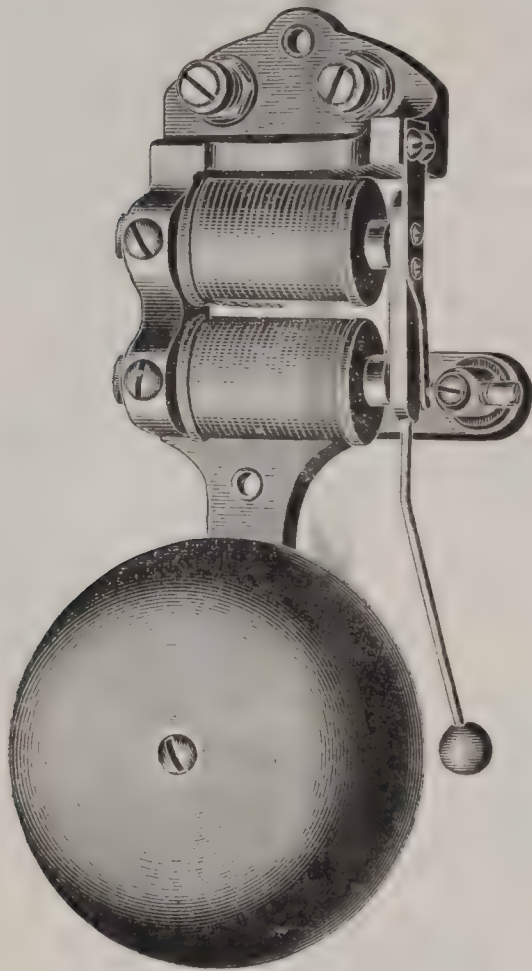


List No. 1875.

List No.		Price.
1875	Monarch Bell, 2½ inch gong.....each,	\$0.90
1876	" " 3 " " " " " "	.95
1877	" " 4 " " " " " "	1.20
1878	" " 5 " " " " " "	1.50
1879	" " 6 " " " " " "	1.70

IRON FRAME BELLS.

BRONZED SKELETON BELL.



List No. 1941.

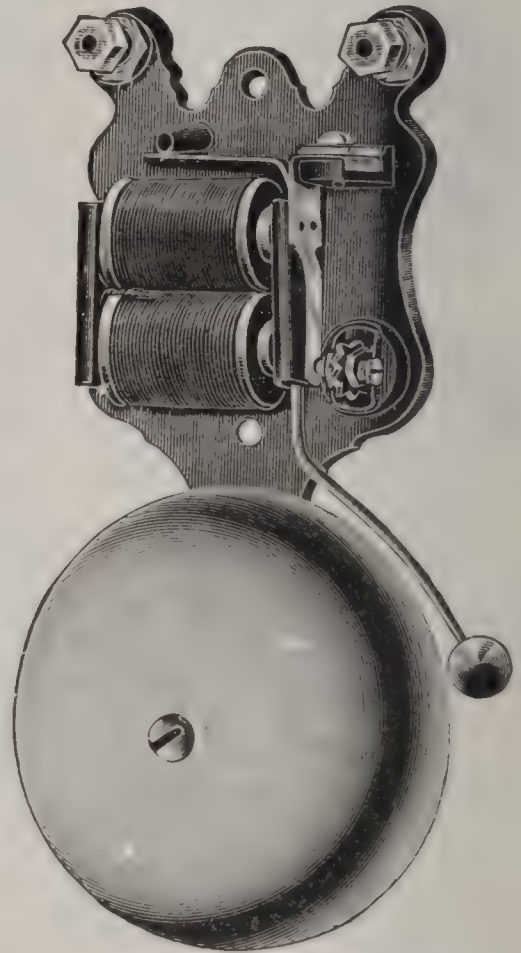
The magnets of this bell are adjustable and can be easily removed from the frame. The armature has a light spring and will work with as little battery as any bell on the market.

List No.	Price.
1941 2 1/2-inch N. P. Gong, 4 Ohms.	\$0.90
1942 3 " " " " ..	.95
1943 4 " " " " ..	1.05

Wound Higher Resistance, at Following Prices:

List No.	Inch.	Price. each.
1944 10 ohms resistance, 2 1/2 Gong.		\$1.30
1945 20 " " 2 1/2 "		1.70
1946 30 " " 2 1/2 "		2.10

JAPANNED FRAME SKELETON BELL.



List No. 1950.

Double Adjustment.

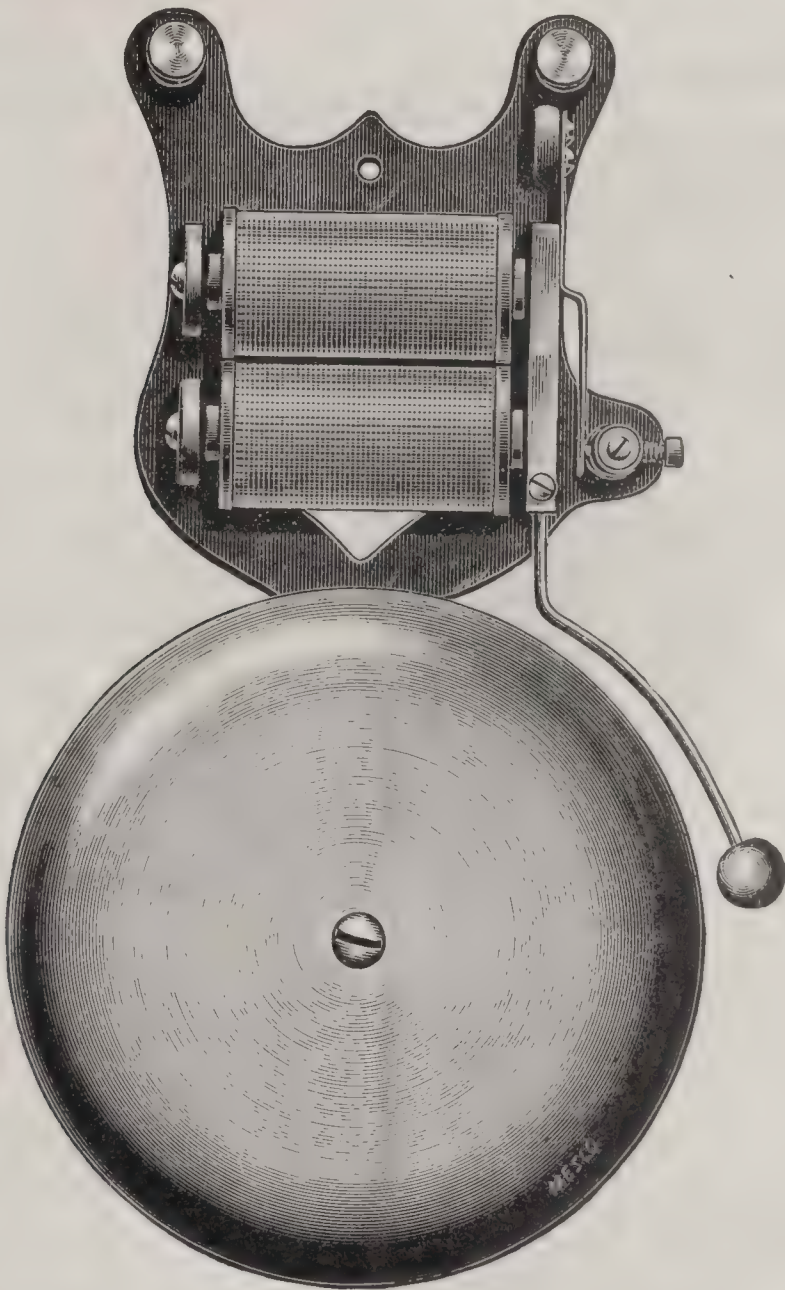
It is a reliable, easy ringing bell, working on one cell of battery and, having a double adjustment, can be operated on two, three or five cells as desired.

It has our patented non-turning binding and adjusting posts, and contact screw is firmly held by lock nut in double post which prevents it from getting out of adjustment.

List No.	Price.
1950 2 1/2-inch nickel-plated Gong.	\$0.50
1951 3 " " " " ..	.55
1952 4 " " " " ..	.90

The 4 inch bells have larger frame and heavier magnets than the 2 1/2 and 3-inch.

IRON FRAME SKELETON BELL.

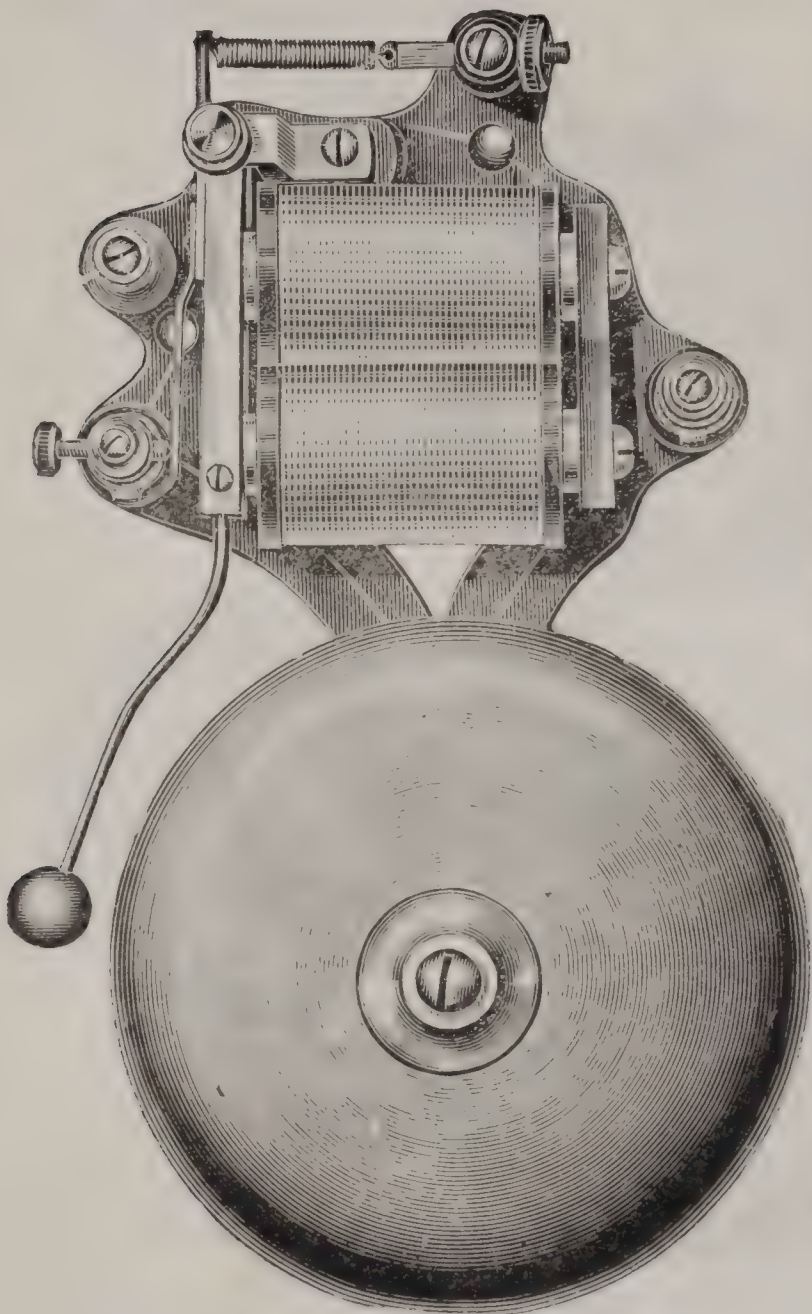


List No. 1985.

This is a high grade, well constructed, spring armature skeleton bell, and can be operated on from two to six cells of battery. The same careful selection of materials and expert workmanship as used with our higher priced apparatus is maintained in the construction and assembling of this bell.

List No.					Price.
1985	5-inch nickel-plated Gong	.....	each,		\$2.35
1986	6 " " " " " " " " " "	.....	"		2.70
1987	7 " " " " " " " " " "	.....	"		3.15
1988	8 " " " " " " " " " "	.....	"		5.00

PIVOTED ARMATURE SKELETON BELL.



List No. 1960.
(Style F.)

Unexcelled for Reliability,
Durability
and Simplicity.

These bells are the neatest in form and appearance of any open frame electric bell made.

The frame is well japanned and beautifully striped. All the parts are heavily nickel-plated, giving the bell a beautiful appearance.

The working parts cannot be excelled; it is well made in every respect.

The steel pivot works in two brass adjustable screws with lock nut.

The contact and tension screws are both easy of adjustment and provided with a locking device.

Selected Hardened Platinum is used for Contacts.

The best cast bell metal nickel-plated gongs are used on these bells.

They are especially adapted for Hotels, Fire Alarms, Railroad Signals, Public Buildings, etc., as they have a powerful blow and clear ringing tone.

For reliability they are unsurpassed.

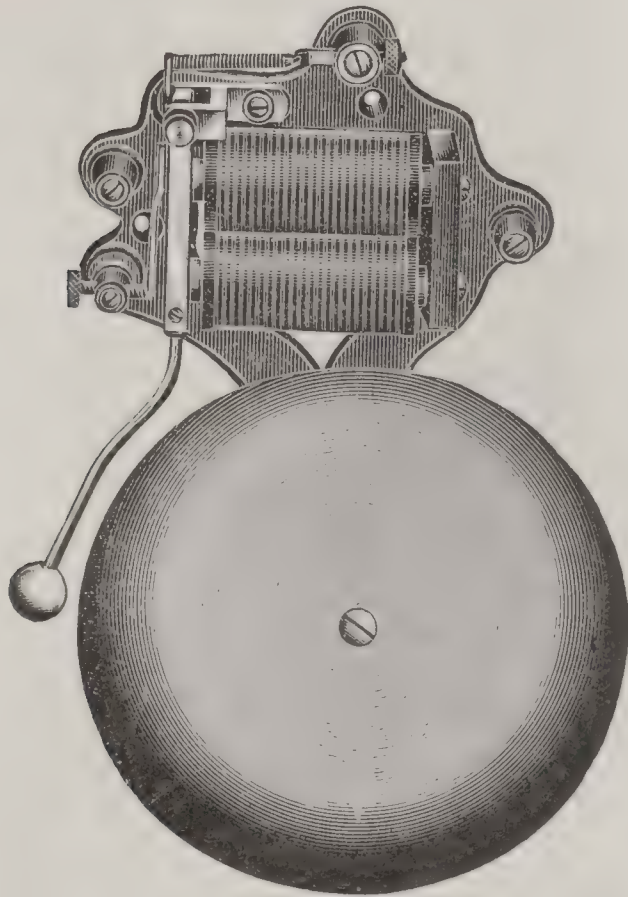
They have our patented non-turning binding and contact posts.

List No.	Frame No.	In.		Price. each.
1960	1,	2½	nickel-plated gong,	\$2.00
1961	1,	3	" " "	2.08
1962	1,	4	" " "	2.34
1963	2,	5	" " "	3.32
1964	2,	6	" " "	3.60
1965	3,	7	" " "	5.46
1966	3,	8	" " "	6.00
1968	4,	10	" " "	9.60
1969	4½	12	" " "	12.00

Special Heavy Frames and Mountings.

List No.	Frame No.	In.		Price. each.
1970	3,	6	nickel-plated gong,	\$4.50
1971	4,	8	" " "	7.25
1972	5,	10	" " "	14.20
1973	5,	12	" " "	16.40
1974	6,	13	" " "	23.10
1975	6,	14	" " "	24.00
1976	6,	15	" " "	31.00

PIVOTED ARMATURE SKELETON BELLS.



List No. 7910.

This bell has been constructed to meet the demand for a well made and reliable pivoted armature skeleton bell which can be sold at a lower price than we are compelled to charge for our Style F bell. It is neat and symmetrical in appearance and is guaranteed to give entire satisfaction in any location where a vibrating battery bell will work. The trimmings are all heavily nickel-plated. The contact and binding posts are non-turnable. The gong is of pressed steel heavily nickel-plated.

It is a thoroughly good bell at a very reasonable price.

List No.					Price.
7910	2 ½-inch	nickel-plated	Gong	.....each,	\$1.76
7911	3	"	"	....."	1.78
7912	4	"	"	....."	1.84
7913	5	"	"	....."	2.80
7914	6	"	"	....."	2.92
7916	8	"	"	....."	5.34
7917	10	"	"	....."	8.26
7918	12	"	"	....."	9.06

IMPROVED MONITOR BELL.

WITH NEW FEATURES FOR STREET CARS, TELEPHONES, ETC.



List No. 1900.



INSIDE VIEW.

The contact spring of this bell is set in a slot in the frame, assuring positive connection, as the vibration cannot jar it loose and break the contact.

The binding posts are also set in slots in the frame, which prevents them from turning and making a poor wire connection.

Double magnets are used, giving a large surface to the armature and a powerful blow to the hammer.

The gong is nickel-plated, and secured in its place so it cannot turn, giving always a clear ring instead of a rattle caused by a loose gong.

Made in one size only.

Diameter of Base, $3\frac{1}{2}$ inches.

Diameter of Gong, 3 inches.

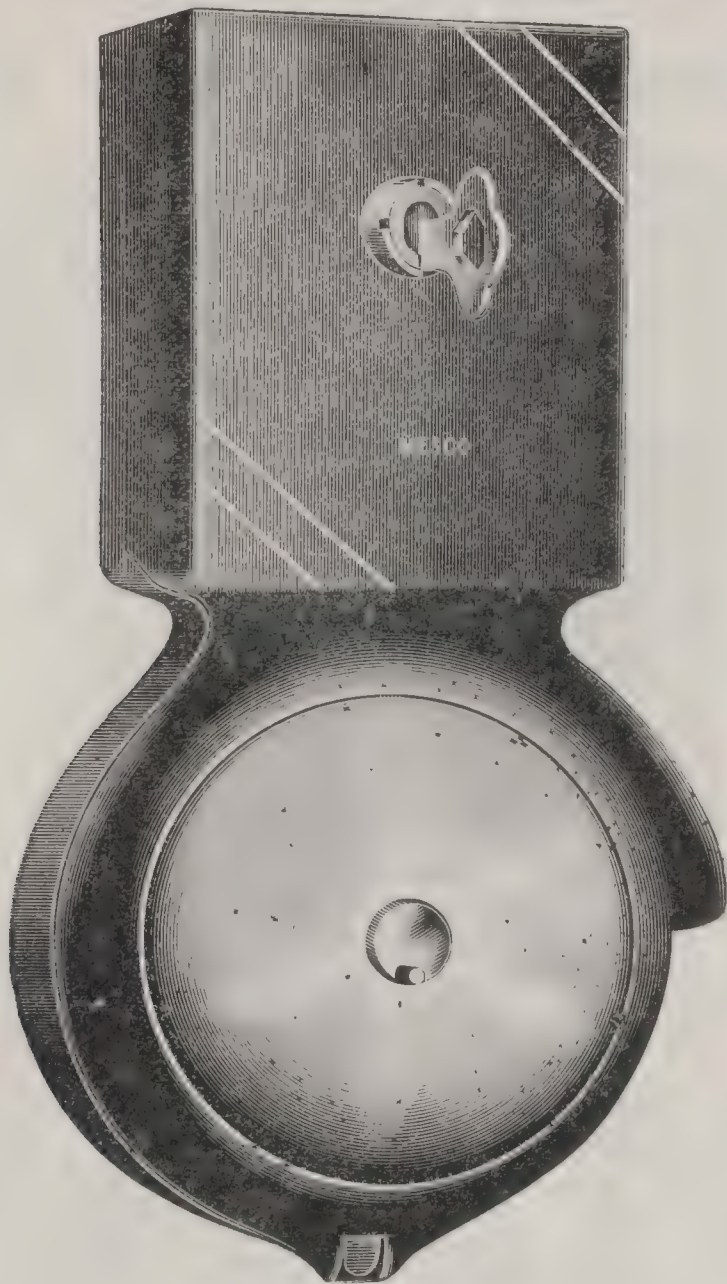
Total Height, $2\frac{1}{2}$ inches.

List No.

1900 Monitor Bell with nickel-plated Gong.....each, **\$0.84**

Price.

MANHATTAN SECURITY LOCK BELL.



List No. 1902.

The Manhattan Security Lock Bell is unexcelled for service in street cars, factories, warehouses, steamships, offices, stores and hundreds of other places where it is important that the bell should ring when desired. The working parts, including the vibrating hammer and binding posts, being securely locked inside the case prevents the accidental or malicious disarrangement of the adjustment or the breakage of a vital part.

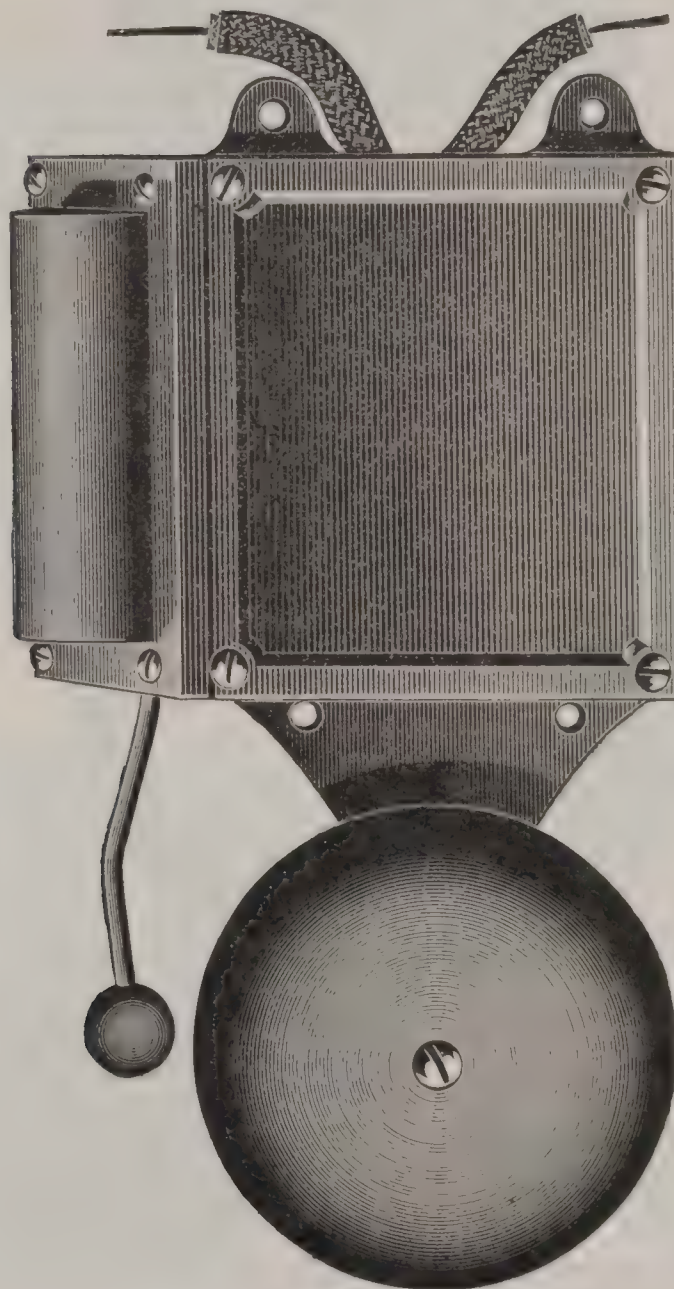
The bell movements are made from the best selected materials and scientifically constructed. The armature is pivoted and has double adjustment. The gong is locked in position and cannot be tampered with. Pure platinum is used for contacts.

Every bell is specially tested and guaranteed to work satisfactorily.

For street car companies and other large users we can arrange special locks and keys for that particular installation, so that one of the special keys will open any bell made for that company and the special combination will be reserved for that purchaser on all subsequent orders.

List No.	Price.
1902 Security Lock Bell, 3 inch Gong... ..	each, \$1.50

IMPROVED WATER-TIGHT BELL.



This improved type of Water-tight Bell owes its superiority to the novel method of make and break used.

The frame and box of the bell are of cast brass and so joined as to be perfectly watertight.

This bell is adapted for use in mines, cold storage plants, chemical works; and for marine use it is unexcelled.

It can be placed in the most exposed places and will work perfectly.

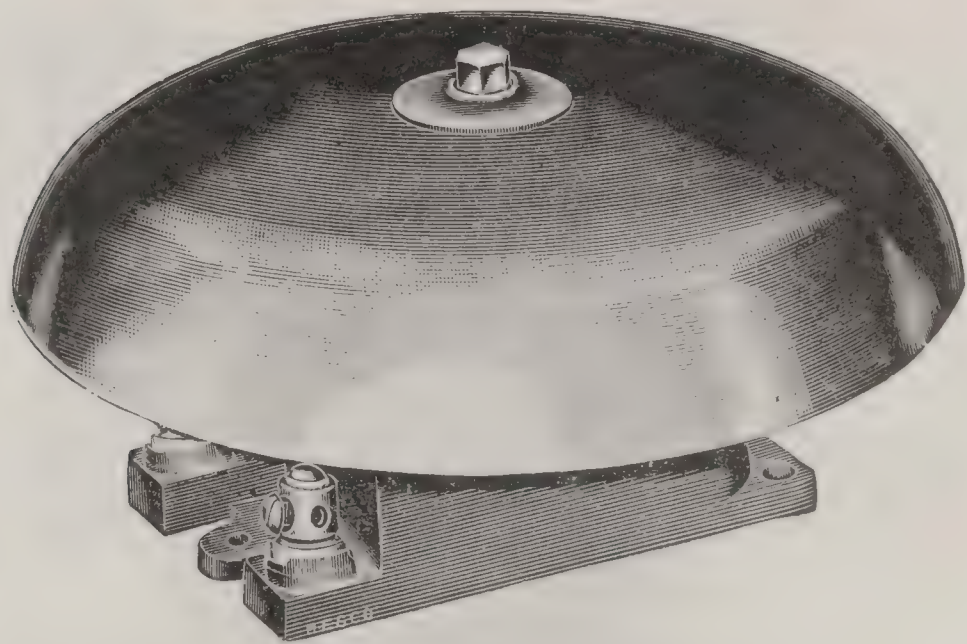
The finish is Black Oxidized and will not readily corrode.

List No.

Price.

1903 Water-tight Bell with 3-inch gong..... \$10 00

IRON CLAD WATERPROOF BELL.



List No. 1990.

This iron clad bell is designed and constructed to protect the operating mechanism and magnets from dampness, dust and other outside influences. The case is very substantial and heavily Japanned. The end of the striking rod is the only part of the working mechanism not contained inside of the case, and as this is operated in a straight line, the opening in the case is very small and securely protected to prevent dampness, etc., from entering.

The contact points are of hardened carbon which permits of the use of a current ranging from 4 to 150 volts with magnets wound to proper resistance. The entire dimensions of the bell being confined within the diameter of the gong, the space occupied is minimized and the position of the gong is an extra protection to the case and binding posts. While we have accomplished our object in making this an absolutely weatherproof bell, its usefulness is not confined to outdoor work alone, it can be installed in factories, mines, railroad stations, cold storage warehouses or any place where a reliable signal is necessary. The current required to operate it is no greater then is necessary with ordinary bells of the same size.

The vibrations are strong, rapid and regular.

The materials and workmanship employed in its construction are the best obtainable, and we unhesitatingly recommend it as the most satisfactory for any location where a vibrating bell can be used.

The cost is but little more then is charged for the ordinary bells of the same size.

EVERY BELL GUARANTEED.

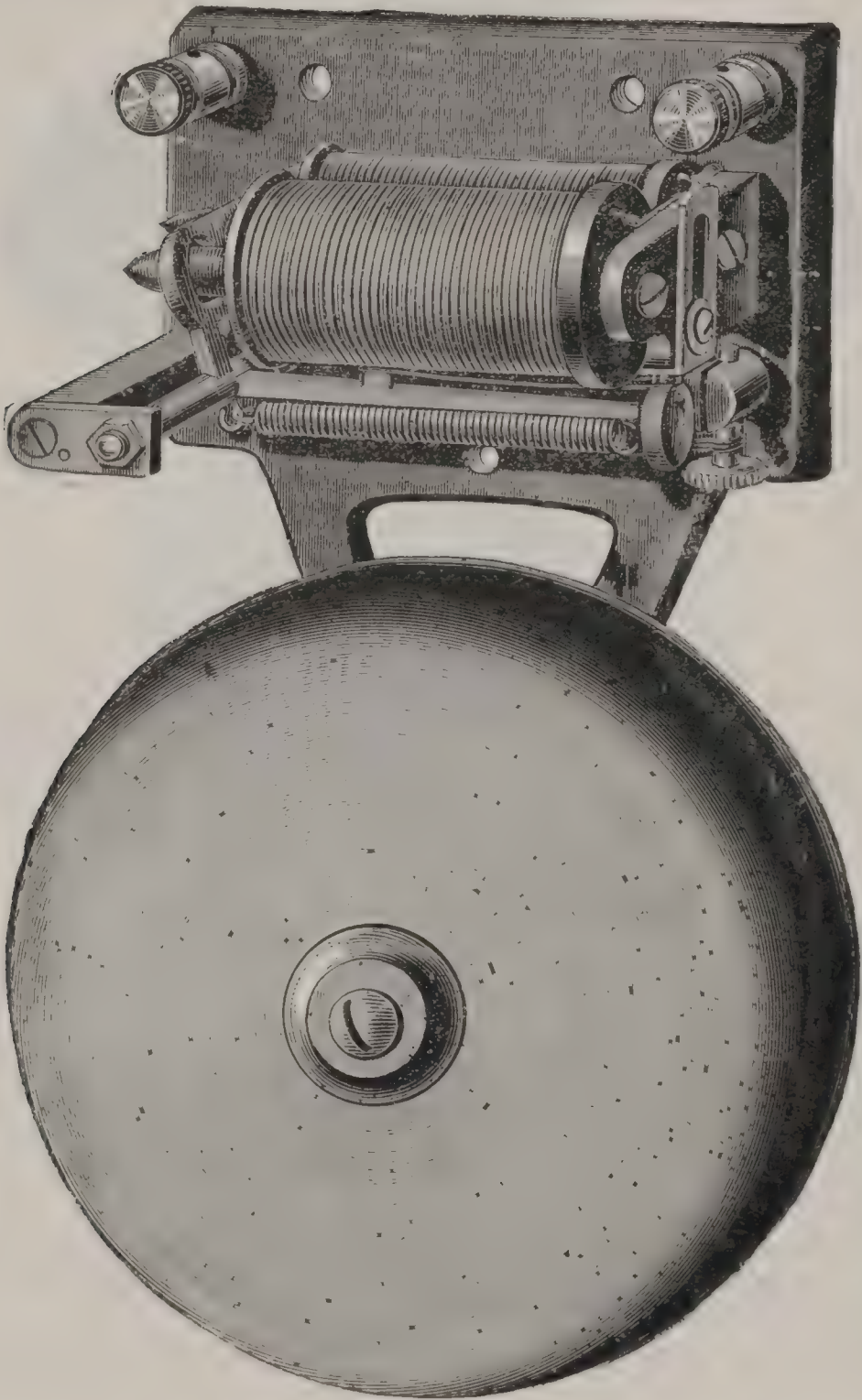
List No.		Price.
1990	Ironclad bell, 5 ohms, 6-inch Gong.....	\$4.00
1991	" " 5 " 7 " "	5.50
1992	" " 5 " 8 " "	6.50
1993	" " 5 " 10 " "	10.50
1994	" " 5 " 12 " "	12.50
1995	" " 5 " 14 " "	24.00

Higher resistance magnets are wound special to order.

For 5 to 40 ohms, add 25 cents each, net.
" 45 to 80 " " 35 " " "
" 85 to 120 " " 45 " " "

SINGLE STROKE BELLS.

For Railroad Stations, Factories, Fire Alarms, Etc.

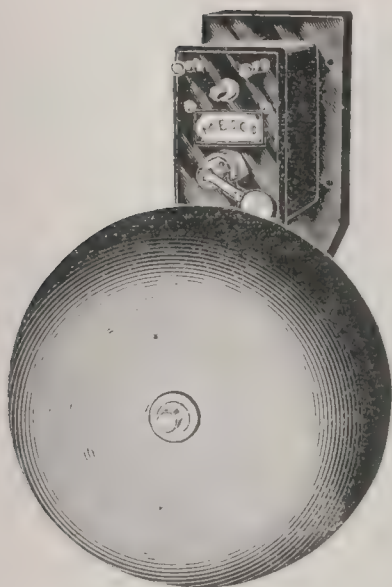


The hammer rod has a short leverage but a long sweep, thus enabling it to give rapid and powerful blows; a stiff, flat spring causes the striker to instantly leave the gong after making the blow, making the signals perfectly distinct, no matter how rapidly given. Regular resistance 6 ohms, can be wound for direct Incandescent Circuit at special prices according to resistance required.

The length of stroke and tension are adjustable.

List No.	Single Stroke	Price Each.	List No.	Single Stroke.	Price Each.
2145	3 in. Gong.....	\$5.00	2150	10 in. Gong..	\$14.40
2146	4 " "	5.50	2151	12 " "	15.00
2147	5 " "	6.20	2152	14 " "	26.20
2148	6 " "	7.50	2153	16 " "	30.00
2149	8 " "	10.00	2154	18 " "	46.50

ELECTRO-MECHANICAL GONGS.



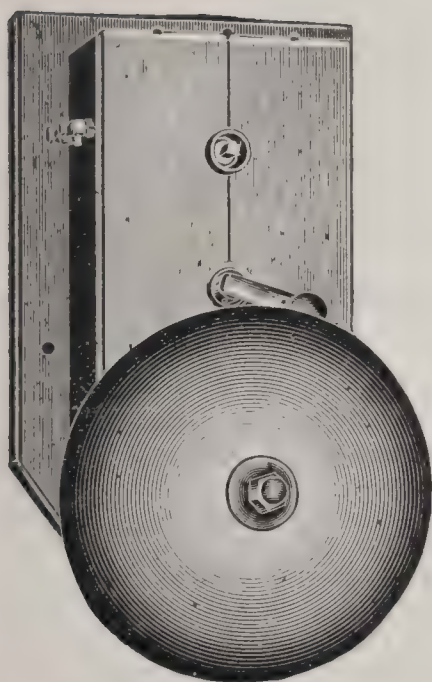
WEATHERPROOF GONG FOR EXPOSED PLACES.

This mechanism is entirely encased in iron thoroughly protecting it from the weather. The spring is very powerful and gives 375 blows to each winding.

This gong can be arranged to operate as a single stroke or constant ringing gong, or to ring continuously until run down after circuit is closed or broken, on open or closed circuit. Unless otherwise ordered we send open circuit single stroke bells.

List No.						Price.
2161	6-inch	4	Ohms	Resistance	-----	\$28 00
2162	8	4	"	"	-----	30 00
2164	10	4	"	"	-----	31 00
2165	12	4	"	"	-----	35 00
2166	14	4	"	"	-----	40 00
2167	15	4	"	"	-----	42 50
2168	16	4	"	"	-----	45 00
2169	18	4	"	"	-----	55 00

Resistance up to 10 Ohms no additional charge. For higher resistance, special price.



ELECTRO-MECHANICAL GONG FOR USE INDOORS.

The case is made of handsomely polished hard wood.

The spring is very powerful and gives 375 blows to each winding.

This gong can be arranged to operate as a single stroke or constant ringing gong, or to ring continuously until run down after circuit is closed or broken. Unless otherwise ordered we send open circuit single stroke bells.

List No.						Price.
2171	6-inch	4	Ohms	Resistance	-----	\$34 00
2172	8	4	"	"	-----	35 00
2173	10	4	"	"	-----	36 00
2174	12	4	"	"	-----	40 00
2175	14	4	"	"	-----	43 50
2176	15	4	"	"	-----	46 00
2177	16	4	"	"	-----	50 00
2178	18	4	"	"	-----	60 00

Resistance up to 10 Ohms no additional charge. For higher resistance, special price.

The above Gongs can be furnished with an attachment to close circuit on a local battery and ring an auxiliary bell to attract attention when gong needs winding.

HOME MEDICAL APPARATUS.

With Dry Battery. Oak or Mahogany Case.



(List No. 2204. Old No. 4, D. D.)

The Home Medical Apparatus, No. 2204, showing case open, with upper compartment containing complete electrodes, viz.:

Two four-foot Conducting Cords, with tips.

Two Tube Hand Electrodes.

Two Insulating Handles, for use with either Hand Electrodes or Sponge Electrodes.

Two Sponge Electrodes.

One Foot Plate.

For physician or patient, home use or traveling, this is the best and most convenient form of Medical Battery ever produced.

Its currents are smooth and even, and their strength can be graded from the mildest perceptible to a power that few can endure.

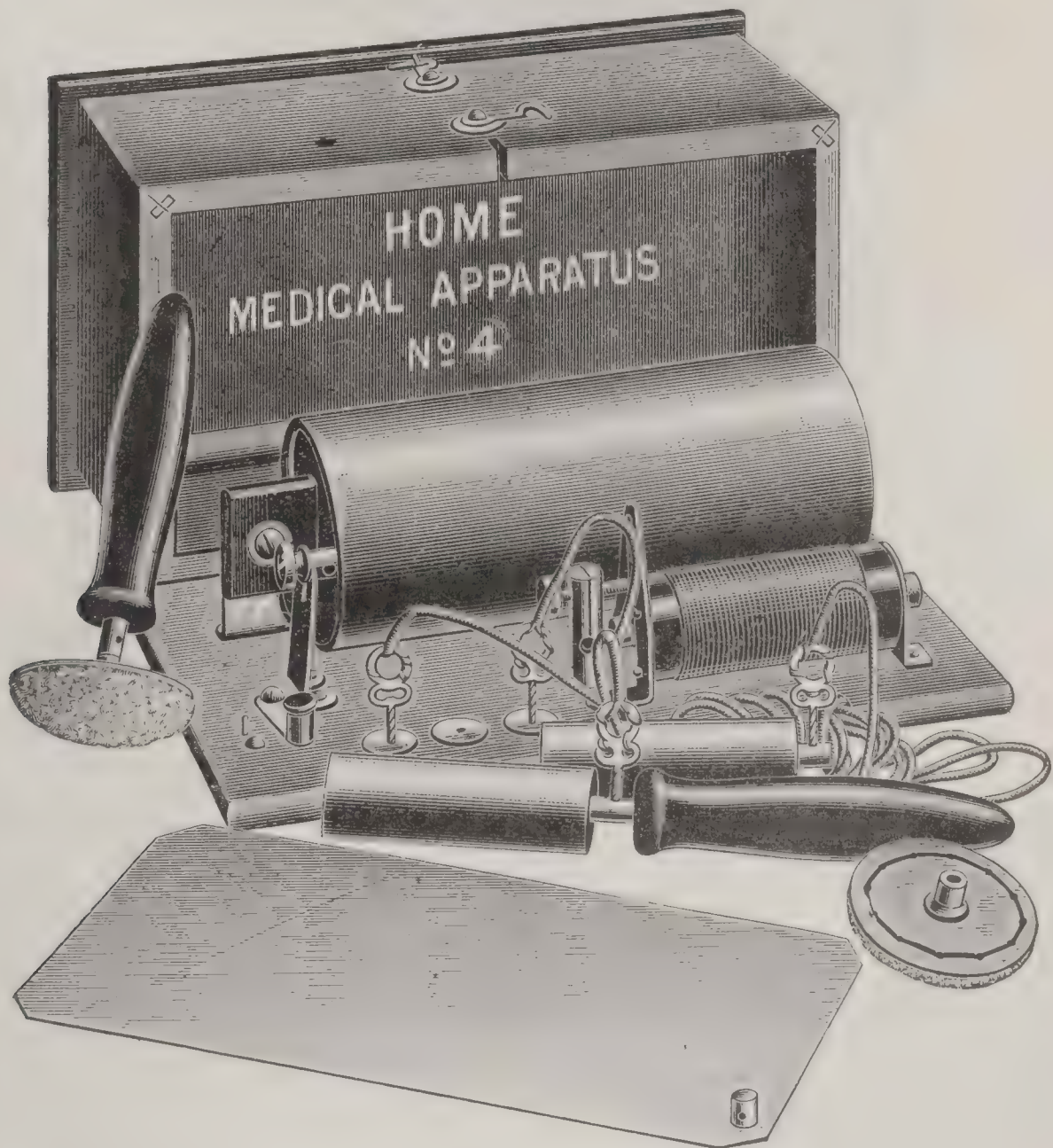
The complete battery is contained in an elegant, highly polished oak or mahogany case, having a strong, handy, nickel-plated handle. The dimensions of the case are $9 \times 5\frac{1}{4} \times 4\frac{1}{2}$ inches, and its weight, complete with Cell and Electrodes, is about $5\frac{1}{2}$ pounds.

Physicians prescribing applications of the Faradic current for patients personally, at home, or by nurse, under specific directions, will find much satisfaction in using this form of apparatus, inasmuch as, from its simplicity and entire absence of acids or liquids, it is particularly suited to the use of those who are entirely unfamiliar with the care and precautions necessary for handling the ordinary acid batteries.

FOR PRICE SEE NEXT PAGE.

No. 4 HOME APPARATUS—Continued.

The unusually complete and excellent set of Electrodes furnished with this instrument make it very convenient in a great variety of applications for the patient, with or without assistance; for instance, in the use of two Sponge Electrodes, one in each hand, or having one of them clasped against any part of the body by means of an elastic, while the other, attached to its insulating handle, can be applied wherever desired; or, when foot plate is used and the Sponge Electrode applied from the other pole of the battery, and a great many other combinations which would naturally suggest themselves from the fact of having the electrodes with which to make them.



List No. 2204.

The Home Medical Apparatus No. 2204. Case open at lower compartment showing the entire apparatus, with Battery, Coil and Electrodes complete.

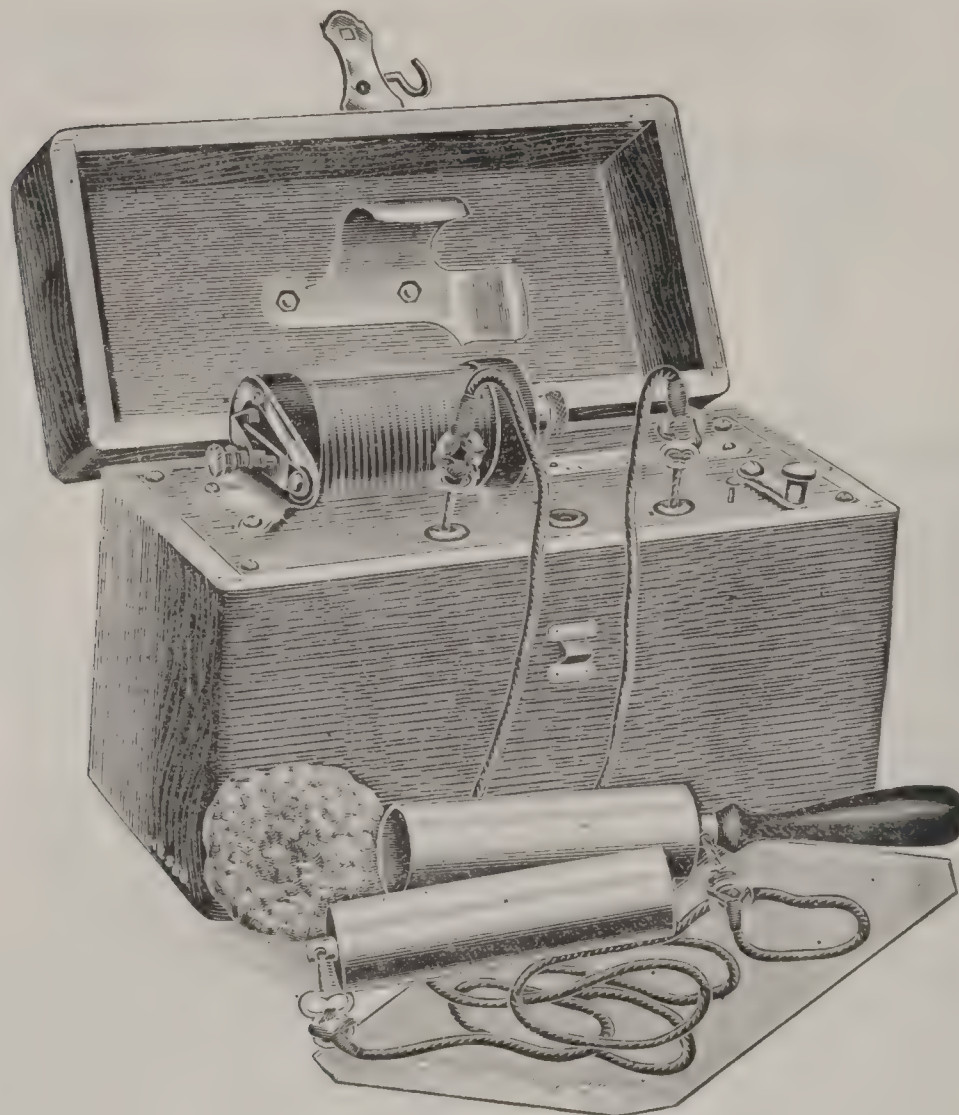
One Electro-Therapeutic Hand Book with 90 pages of directions for home treatment is included with each apparatus.

List No.

Price.

2204 No. 4 Apparatus, with Battery and Electrodes, complete.....\$10.00

ANTI-DOC MEDICAL APPARATUS.



List No. 2215.

Dimensions $7\frac{3}{8} \times 5\frac{1}{4} \times 3\frac{1}{2}$ inches.

The Anti-Doc is without question the most Compact, Reliable, Durable and Neatest Medical Apparatus of its kind ever manufactured.

Our many years experience in the manufacture of Medical Apparatus has acquainted us with every phase of objection brought against the various styles hitherto in use, and led us to apply considerable thought to the construction of a form of Battery that would, as far as possible, avoid these objections and still constitute a moderate priced apparatus. The armature and vibrating parts are an entirely new design and so arranged that perfect adjustment is always maintained. The frame for holding the adjustable Contact Screw and Armature is made from one piece of metal and is securely fastened to the base holding the coil and to the end of the induction coil, thus insuring permanency of position for all the parts. A recording scale is attached to the base to show the strength of current in operation.

It will generate a current as powerful and steady as that furnished by any one cell apparatus manufactured

Three currents are furnished, viz.: Primary, Secondary, and Primary and Secondary combined.

The following electrodes are included: Two Metallic Hand Electrodes; one Improved. Sponge Electrode; one Nickel-Plated Foot Plate; one Electrode Handle, for Sponge or Hand Electrode; one Pair Silk Conducting Cords, with tips.

Also an Electro-Therapeutic Hand Book with 90 pages of directions for home treatment with each apparatus.

List No.

Price.

2215 Apparatus, with Battery and Electrodes, complete.....\$4.00

MANHATTAN MEDICAL APPARATUS.



Double Cell, large coil instrument, especially constructed to furnish **more powerful currents** than can be obtained from any of the usual sizes or forms of Electro-Medical Batteries.

This apparatus is operated by two cells of Mesco dry battery. Either one cell or both can be connected as desired at the two-point switch. We include two sponge electrodes, two ebonized handles, two hand electrodes, two silk covered cords, one foot plate, one hair brush, and one Electro-Therapeutic Hand Book. We guarantee this equal to any apparatus of its kind manufactured.

List No

2225 Double Cell Apparatus, with Electrodes.....

Price.

\$12.00

THE UNIQUE MEDICAL APPARATUS.



This is a complete and perfect working Medical apparatus, small enough to fit in the pocket, and powerful enough to suit most users. The case is made of Oak with cabinet finish and the coil and vibrator is the same as used in our No. 2215 outfit.

The dry battery used is our No. 2380 and it is contained in a nickel-plated tube; this battery can be taken out when exhausted and a new one put in without trouble or tools.

All metal parts are nickel-plated.

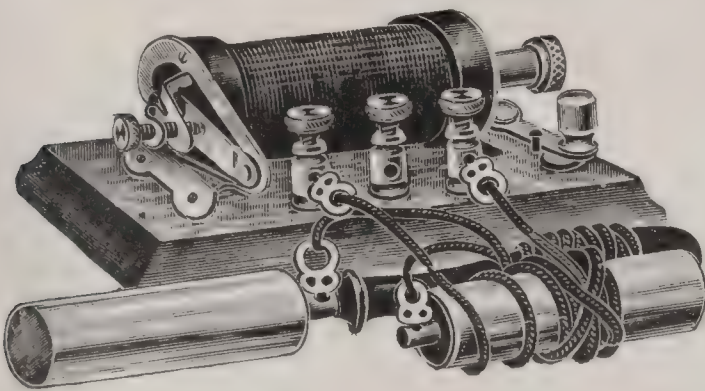
This outfit is without question the best low-priced Medical Apparatus on the market, and will commend itself to any one requiring a medical battery for occasional use at home or for traveling.

Size $1\frac{3}{4}$ x $2\frac{3}{4}$ x 5 inches.

List No.	Price.
2202 Medical Apparatus complete.....	\$2 50
2380 Battery only.....	20

Special prices quoted on large lots.

IMPROVED MEDICAL INDUCTION COIL.

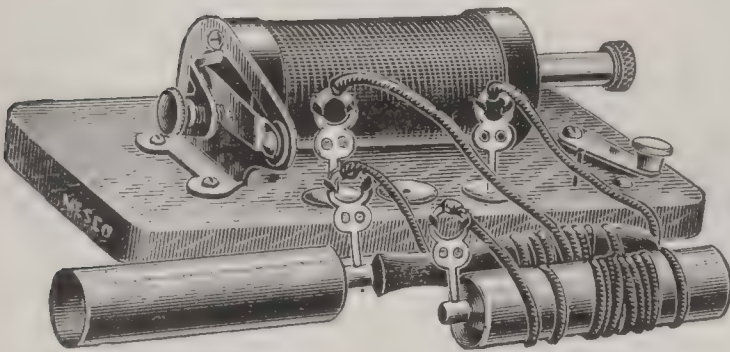


List No. 2234.

A finely finished and powerful instrument. The coil is mounted on a heavy polished Oak base and is provided with a switch for opening the primary circuit so that the battery need not be disconnected. It is arranged to give both primary and secondary currents. Two hand electrodes, two conducting cords and one ebonized electrode handle is supplied.

List No.	Price.
2234 Without Battery, complete with electrodes.....	\$2 40

STANDARD MEDICAL INDUCTION COIL.



List No. 2235.

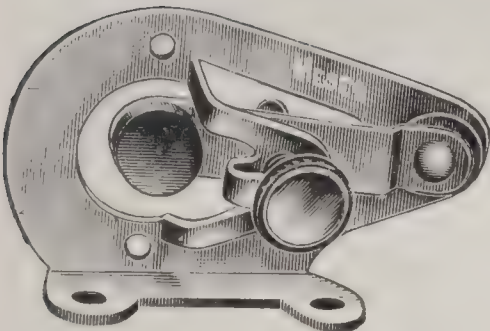
A first-class Medical Coil.

For full description see page describing Induction Coil, etc., of Anti-Doc. Apparatus.

Mounted on Oak or Mahogany Bases.
Two Metal Electrodes.
Two Silk Covered Conducting Cords.
One Wood Handle furnished with every Coil.

List No.	Price.
2235 Complete with Electrodes..	\$2 00

CURRENT INTERRUPTER.



List No 2375.

Vibrator and contact screw on same base. Can be attached to most any induction coil. One wire connects to the frame, the other to a metal strip in the rear. Same as used on Medical Apparatus No. 2235.

List No.	Price.
2375 Current Interrupter as illustrated.....	\$0 40

CONDUCTING CORD TIPS.



(Cut shows method of attaching cord.)

List No.	Price.
2359 Plated tips for cords.....	\$0 05

SEPARABLE CORD TIPS.



(To attach cord.)



(Cut shows cord attached.)

List No.	Price.
2360 Nickel-plated	\$0 05

ELECTRODES.

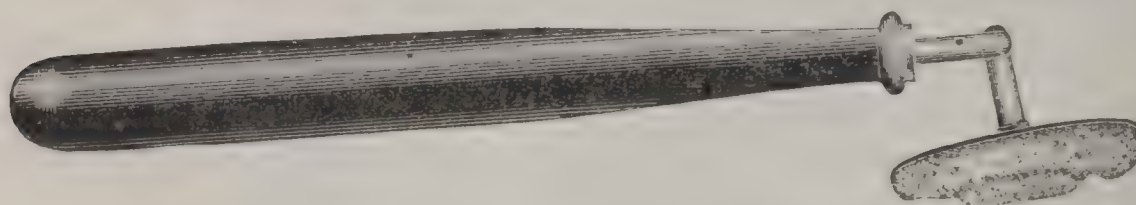
MASSAGE ROLLER ELECTRODE.



This Electrode has metal roller and frame, highly polished and nickel-plated, and is fitted with an ebonized wood handle. The method of conducting the electric current to the roller is ingenious and will give the best possible results. This electrode can be attached to any medical apparatus.

List No.	Price.
2210 Roller Electrode, as illustrated.....	\$0 80

LONG HANDLE SPONGE ELECTRODE WITH HINGE.



This Electrode will be appreciated by the profession. Patient can apply treatment to spine without trouble or inconvenience. Sponge can be set at any angle.

List No.	Price.
2310 Electrode complete.....	\$ 75

INTERCHANGEABLE ELECTRODE HANDLE.



List No.	Price.
2365 Electrode	\$0 15

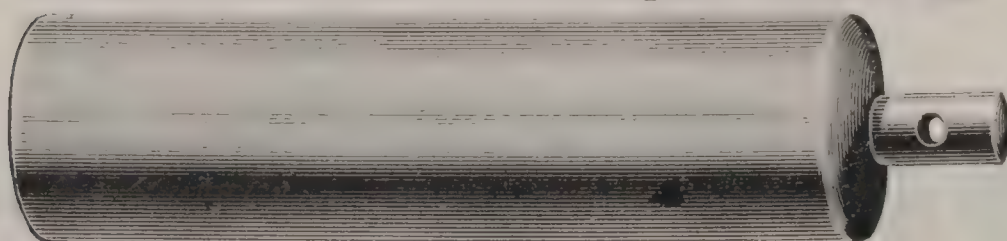
For use with Cylinder No. 2370 and Sponge Electrode.

CYLINDER HAND ELECTRODE.



List No. 2370.

No. 2370 is intended for use with Interchangeable Handle No. 2365.



List No. 2371.

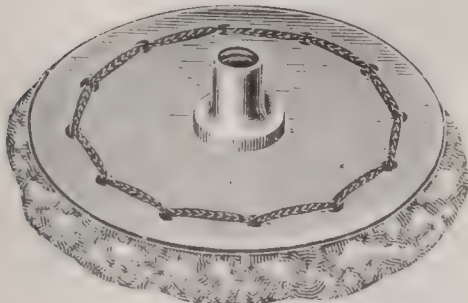
No. 2371 is sufficiently small to go into No. 2370

List No.	Price.	List No.	Price.
2370 Nickel-plated.....	\$0 15	2371 Nickel-plated.....	\$0 15

ELECTRODES.

SPONGE ELECTRODES.

Metal parts nickel-plated, fits the Interchangeable Handle.



List No. 2373.

List No.	Price.
2373 Good quality Sponge, well fastened.....	\$0 20

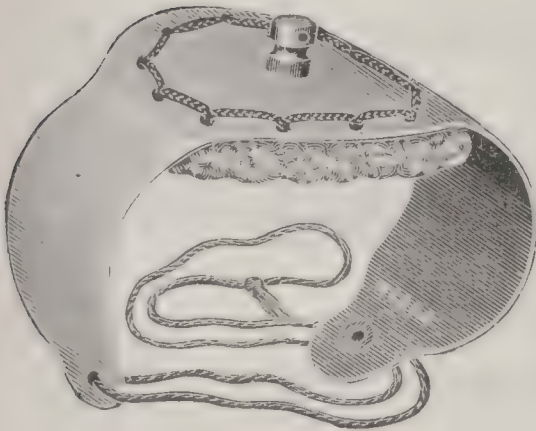
FOOT PLATE ELECTRODES.

As furnished with our No. 2225 Medical Apparatus.

List No.	Price.
2374	\$0 50

WRIST ELECTRODE FOR MASSAGE TREATMENT.

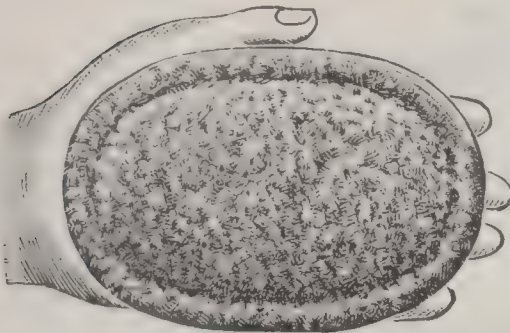
This Electrode is very popular for massage treatment as the sponge makes a perfect conductor of the electric current to the wrist of the operator which gives the patient the best possible results of a combination massage and electric treatment. Metal parts are made of the best material and heavily nickel-plated.



List No.	Price.
2211 Wrist Electrode with five feet Conducting Cord	\$0 90

FLEXIBLE RUBBER BACK SPONGE ELECTRODE.

The size of this Electrode is 3 x 5 inches, oval shape to fit the hand.

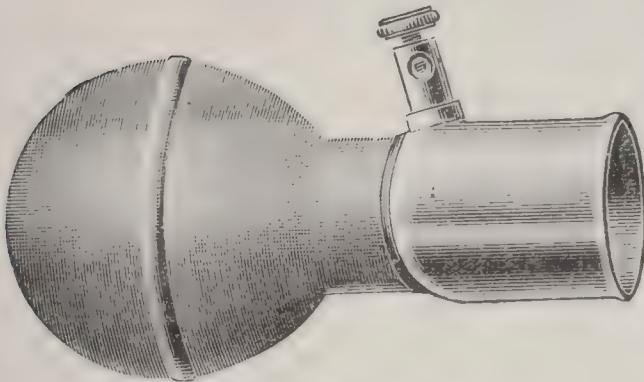


List No.	Price.
2311 Electrode complete.....	\$1 00

MASSAGE CUP ELECTRODE.

The Vacuum Cup Electrode is one of the latest and best instruments for applying electricity to the face.

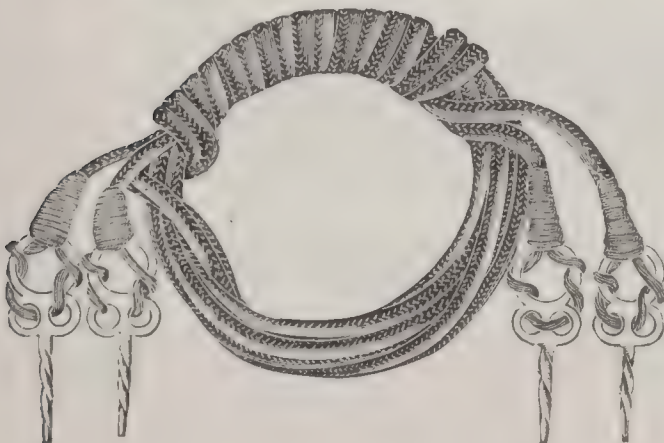
When the rubber bulb is pressed, the rim of the cup makes a perfect contact, producing a very pleasant sensation quite different from the stinging sensation produced by the usual electrodes used for facial massage.



List No.	Price.
2312 Electrode complete.....	\$1 50

MEDICAL BATTERY CORDS.

The cords are three feet long, one red and one green, silk braid over wires, with plated tips. Strong and serviceable.



List No.	Price.
2358 Cords, 3 feet long, per pair.....	\$0 40
2362 " 4 " " " "	50

ELECTRODES.Cut $\frac{2}{3}$ Size.**VAGINAL ELECTRODE.**

List No.		Price.
2313	Electrode complete.....	\$1 00

Cut $\frac{2}{3}$ Size.**BI-POLAR VAGINAL ELECTRODE.**

List No.		Price.
2314	Electrode complete.....	\$1 00

Cut $\frac{2}{3}$ Size.**RECTAL ELECTRODE.**

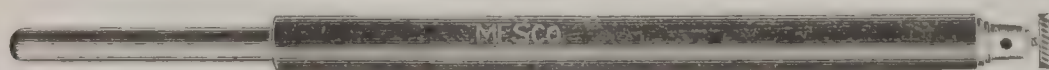
List No.		Price.
2315	Electrode complete.....	\$1 00

Cut $\frac{2}{3}$ Size.**TONQUE ELECTRODE.**

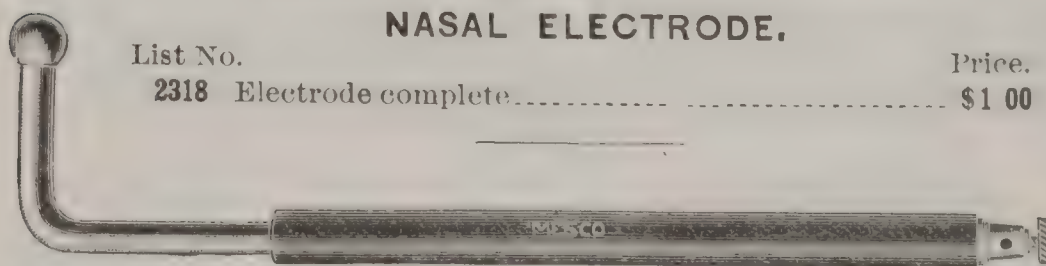
List No.		Price.
2316	Electrode complete.....	\$1 00

Cut $\frac{2}{3}$ Size.**TONSIL ELECTRODE.**

List No.		Price.
2317	Electrode complete.....	\$1 00

Cut $\frac{2}{3}$ Size.**NASAL ELECTRODE.**

List No.		Price.
2318	Electrode complete.....	\$1 00

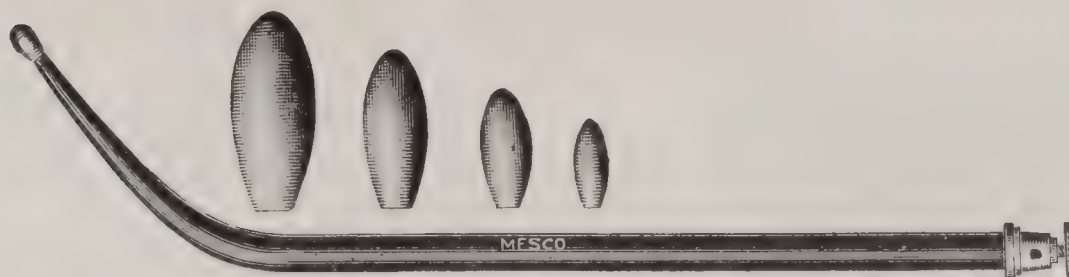
Cut $\frac{2}{3}$ Size.**EAR ELECTRODE.**

List No.		Price.
2319	Electrode complete.....	\$1 00

The Hard Rubber Handles on the Nos. 2316-17-18-19 are interchangeable and if desired Electrode attachments may be had separate.

List No.		Price.
2320	Tongue attachment.....	\$0 25
2321	Tonsil ".....	25
2322	Nasal ".....	25
2323	Ear ".....	25

ELECTRODES.

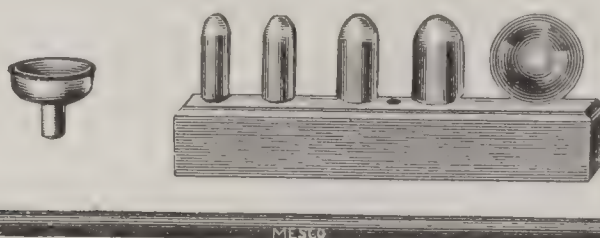


Cut $\frac{2}{3}$ Size.

UTERINE ELECTRODE.

Hard Rubber with four extra Olives.

List No.		Price.
2324	Electrode complete with Olives.....	\$1 50



Cut $\frac{2}{3}$ Size.

URETHRAL ELECTRODE.

Hard Rubber Holder with four Olives, Uterine Cup and Rectal Ball.

List No.		Price.
2325	Straight Holder complete as above.....	\$1 50
2326	Curved " " " "	1 50

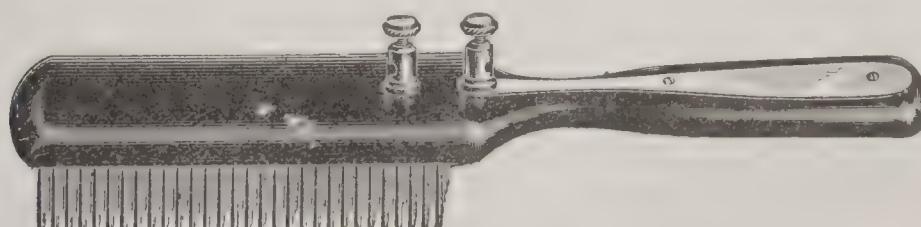


Cut $\frac{2}{3}$ Size.

COMB ELECTRODE.

This Electrode is used in connection with the hair brush listed underneath and can be used with any medical apparatus.

List No.		Price.
2327	Comb Electrode complete.....	\$0 70



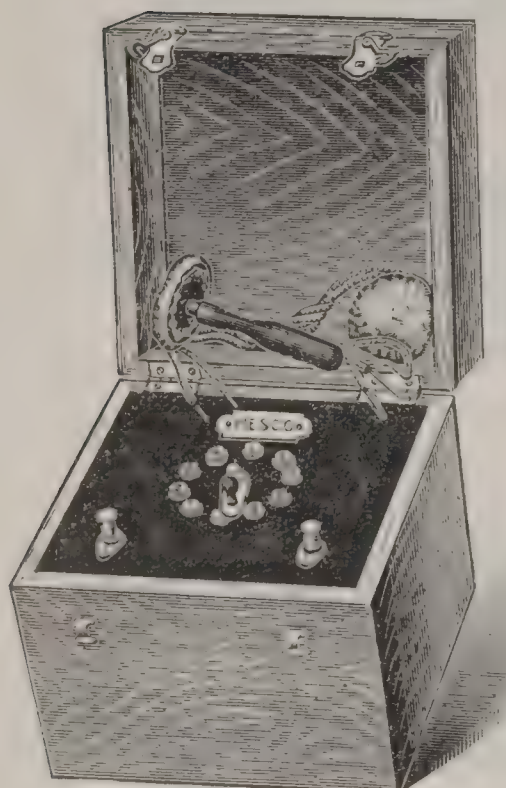
Size

HAIR BRUSH ELECTRODE.

This Electrode furnishes the means of applying currents of electricity to the head and roots of the hair.

List No.		Price.
2355	Hair Brush Electrode complete.....	\$1 50

GALVANIC BATTERY AND EPILATION OUTFIT.



This apparatus is intended for use in the removal of superfluous hair and other facial blemishes, treating strictures, etc., and for treatment about the head and other sensitive parts of the body.

Highly polished Oak box eight inches square. Switch, contacts and binding posts, are mounted on polished slate base.

Box contains nine cells of dry battery, any number of which can be thrown into the circuit by means of the switch.

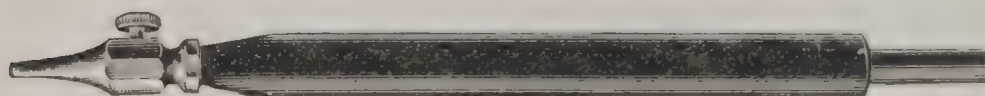
New batteries can be easily inserted by any one.

Outfit contains :

- Two Sponge Electrodes.
- One Electrode handle.
- One Needle holder.
- Six Steel Needles.
- One Epilation Forceps.
- One pair Silk cords.

List No.	Price.
2231 Outfit complete.....	\$10 00

EPILATION APPARATUS.



NEEDLE HOLDER.

Hard rubber with nickel-plated mounting.

List No.	Price.
2328 Needle holder.....	\$0 80

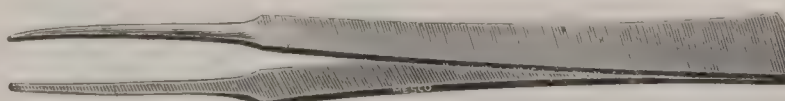


NEEDLE HOLDER WITH CURRENT BREAKER.

List No.	Price.
2329 Needle holder.....	\$1 00

SWISS NEEDLES.

List No.	Price.
2330 Needles per dozen.....	\$0 60



EPILATION FORCEPS.

List No.	Price.
2331 Forceps.....	\$0 30

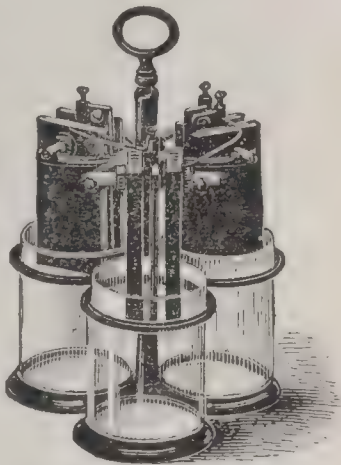
STUDENT'S PLUNGE BATTERY.

Made in Four Styles—1, 2, 3 and 4 Cells.

These Batteries are the cheapest and most powerful small liquid Batteries for all experimental purposes. They are mounted on a very neat and compact all-iron stand. The elements are hung into an iron centre piece, which slides on the centre rod and can all be lowered at once into the fluid. The great strength of this Battery, and the easy convenience for setting it in action and out of action make it a desirable Battery for running incandescent Lamps, Electric Motors, Rhumkorff Coils, Geisler Tubes, and Rotators for Electrolytical Experiments, etc., etc.



List No. 2770.



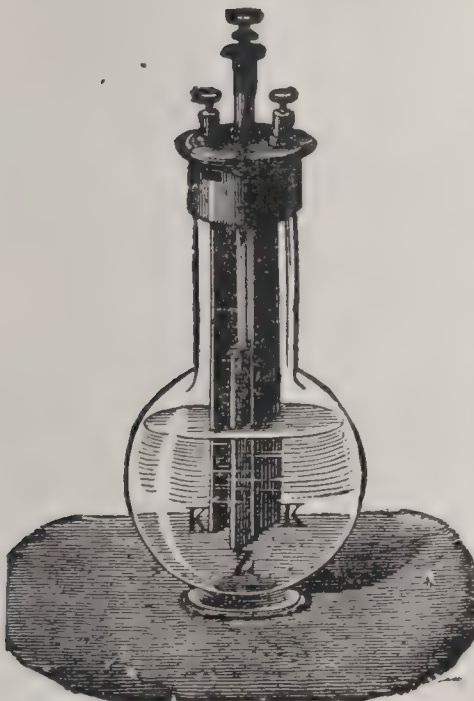
8¼ INCHES HIGH.

List No. 2772.

List No.		Price.
2770	1 Cell Student's Plunge Battery, will run an Electro-Medical Machine, Electric Bell or Signal.....	\$1.30
2771	2 Cell Student's Plunge Battery, will run a Rhumkorff Coil, Geisler Tube Rotator or a 1 candle power Lamp.....	2.60
2772	3 Cell Student's Plunge Battery, will run a Manhattan Motor or any similar Motor or a 2 candle power Lamp.....	3.70
2773	4 Cell Student's Plunge Battery, will run all above with increased force or a 3 candle power Lamp.....	6.00
2774	Extra Zincs will fit any of the above, each.....	.30

GRENET BATTERY.

The Grenet Battery is especially adapted for experimental and illustrative purposes. It occupies but little space, furnishes an immense quantity of current, is beautiful in design, and, as the zinc can be raised from the fluid, may be kept charged, ready for use, for many months, and can be set in action any time when required by simply depressing the brass rod which slides through the centre of the cover of the cell, and to which the zinc is attached.

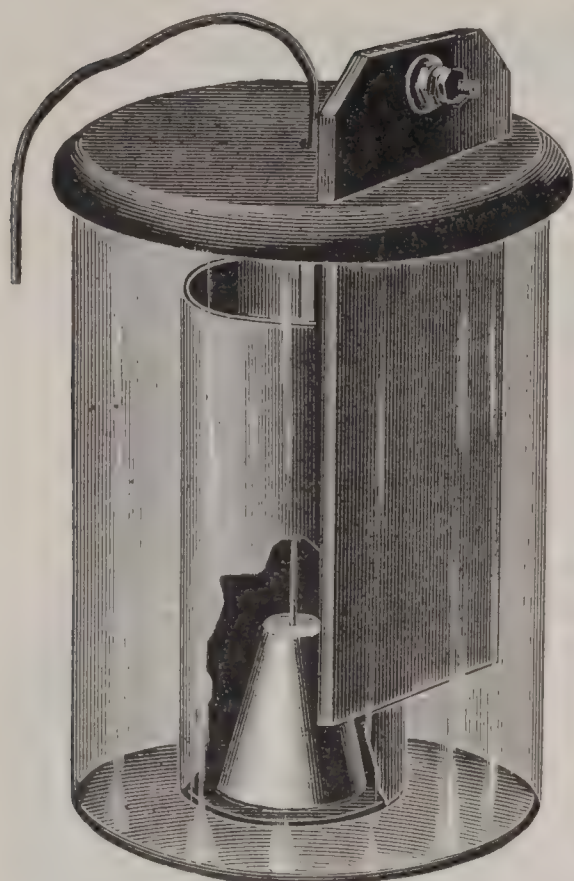


FRENCH FORM.

List No. 2782.

List No.		Price.
2780	6-inches high.....each,	\$2.00
2781	8 " " " " " " " " " " " "	3.50
2782	10 " " " " " " " " " " " "	4.50
2783	12 " " " " " " " " " " " "	5.50
2784	12 " " " double Zincs&Carbons, " "	9.00
2785	Extra Zincs for No. 2780.....	.20
2786	" " " " 2781.....	.20
2787	" " " " 2782.....	.35
2788	" " " " 2783.....	.35

Give List No. and Page when ordering.



List No. 2575.

TELEPHONE STANDARD FULLER BATTERY.

Especially Adapted for Long Distance Telephoning.

List No.	Price.
2575 Cell, Complete.....	each, \$1.50

RENEWAL PARTS.

List No.	Price.
2576 Glass Jar.....	each, \$0.36
2577 Cover for Jar.....	“ .16
2578 Carbon with Connector....	“ .56
2579 Porous Cup.....	“ .20
2580 Zinc.....	“ .26

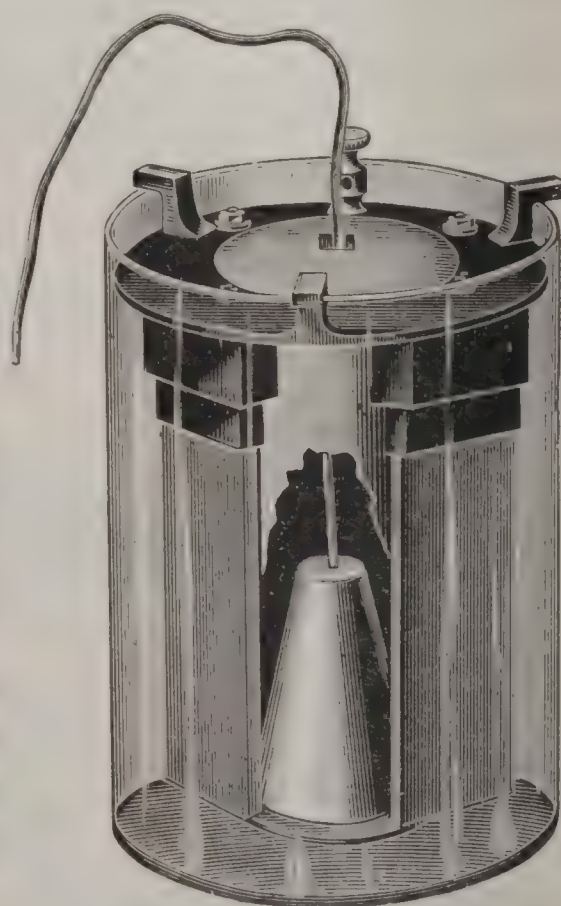
We furnish printed instructions with each cell, for setting up and maintaining acid batteries.

COMPOUND FULLER BATTERY.

List No.	Price.
2585 Cell, Complete.....	each, \$2.00

RENEWAL PARTS.

List No.	Price.
2586 Glass Jar.....	each, \$0.40
2587 Carbon Hanger, with Binding Post.....	“ .50
2588 Carbons, with Connectors (4), price each, 35 cents, per set,	1.40
2589 Porous Cup.....	each, .20
2590 Cover for Porous Cup.....	“ .10
2591 Zinc.....	“ .28

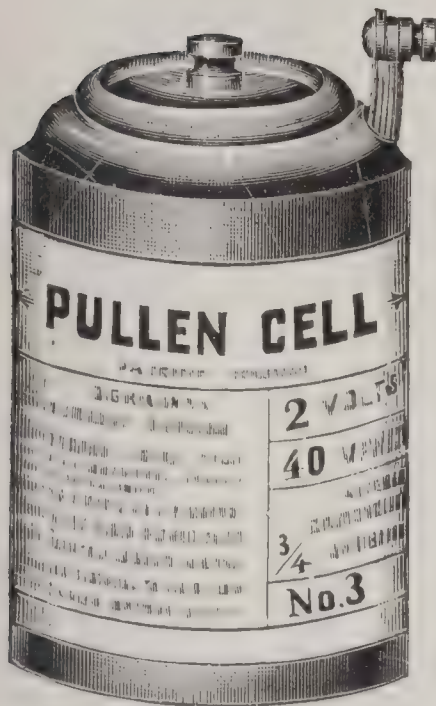


List No. 2585.

The Compound Fuller Battery is suitable for Incandescent Lamps, Motors, Nickel and other Electro plating. The zinc is kept amalgamated by mercury placed in the porous cup. The battery being completely covered, evaporation is prevented.

PULLEN PRIMARY CELLS.

Can be used in closed or open circuit.



FOR USE WITH

Fan Motors	Sewing Machines
Phonographs	Induction Coils
Slot Machines	Railroad Signals
Electric Clocks	X-Ray Apparatus
Electro-Plating	Gas Engine Ignition
Carriage Lamps	Fire and Police Signals
Dental Engines	Miniature Incandescent Lamps
	Etc., Etc.

List No.	No. 3 Cell.	Price.
2745	In Glass, 3 1/4 x 6 inches.....each,	\$1.00
2746	In Metal Case, 3 3/4 x 6 inches, for portable work ; cannot slop.. "	2.00

RENEWALS.

2747	Charged Porous Cup.....	.50
2748	Zinc, (about every third recharge).....	.20

No. 4 Cell.

2749	In Glass, 4 1/4 x 6 1/2 inches.....each,	1.60
2750	In Metal Case, 4 1/2 x 6 1/2 inches, for portable work; cannot slop.. "	2.70

RENEWALS.

2751	Charged Porous Cup.....	.85
2752	Zinc, (about every third recharge).....	.25

No. 5 Cell.

2753	In Glass, 5x8 inches.....each,	2.60
2754	In Metal Case, 5 1/4 x 8 inches, for portable work ; cannot slop... "	3.80

RENEWALS.

2755	Charged Porous Cup.....	1.40
2756	Zinc, (about every third recharge).....	.40

Each cell gives two volts and has low internal resistance, which clearly shows their ability to stand a heavy discharge and still maintain a high and constant Electro-Motive force. They can be put in service as soon as charged. The ease, cleanliness, and simplicity in the recharging of them will appeal to anyone using batteries. They will not freeze, nor will they polarize. Current is constant, no odor or fumes, no creeping, no local action, they can be kept in stock any length of time without deteriorating. The cells will stand recharging a number of times from direct current the same as a storage cell, recharge in amperes at the normal discharge rate given.

The liquid-tight cell is designed for all portable work, such as Gas Engine Ignition in Automobiles and Launches, etc. They will not slop, jars will not break, they are easily and cheaply recharged. Three cells (6 volts) are sufficient for operating the average engine, giving a continuous hot and heavy spark.

EDISON PRIMARY BATTERY.



List No. 2650. (Type Q.)

List No. 2680. (Type AA.)
SIZE OVER ALL $7\frac{1}{4} \times 10$ INCHES.

Capacity 300 ampere hours.
For marine and traction gas engines.
Liquid-tight steel enameled jar.

List No. Price each.
2680 Battery complete...\$3 50
RENEWAL CHARGE.

2681 1 Oxide Plate..... 55
2682 1 Zinc Plate..... 55
2683 1 Caustic Soda..... 28
2684 1 Bottle Oil..... 07

EXTRA PARTS.
2690 Steel Jar..... 1 00
2691 Porcelain Cover..... 45
2692 Copper Frames..... 40
2693 Gasket Rings..... 15
2694 Vent Nipples..... 03

List No. 2645. (Type BB.)
SIZE OVER ALL $4\frac{1}{2} \times 7\frac{3}{4}$ INCHES.

Capacity 100 ampere hours.
For gas engines and slot machines.
Porcelain jar.

List No. Price each.
2645 Battery complete...\$1 50
RENEWAL CHARGE.

2646 1 Oxide Plate..... 24
2647 1 Zinc Plate..... 28
2648 1 Caustic Soda..... 15
2649 1 Bottle Oil..... 05

EXTRA PARTS.
2695 Porcelain Jar..... 35
2696 Porcelain Cover..... 25
2697 Copper Frames..... 30

List No. 2650. (Type Q.)
SIZE OVER ALL $5\frac{3}{4} \times 8\frac{3}{4}$ INCHES.

Capacity 150 ampere hours.
For gas engines, small fan motors, spark coils, large annunciators, burglar alarms and slot machines.

Porcelain jar.

List No. Price each.
2650 Battery complete...\$2 20
RENEWAL CHARGE.

2651 1 Oxide Plate..... 31
2652 2 Zinc Plates..... 28
2653 1 Caustic Soda..... 17
2654 1 Bottle Oil..... 06

EXTRA PARTS.
2698 Porcelain Jar..... 40
2699 Porcelain Cover..... 35
2700 Copper Frames..... 35



List No. 2645. (Type BB.)

List No. 2655. (Type RR.)
SIZE OVER ALL $7\frac{1}{4} \times 10\frac{1}{2}$ INCHES.

Capacity 300 ampere hours.
For gas engines, fan motors, phonographs, district telegraph, fire alarm telegraph, local and main line batteries, turntable motors, electro-plating railroad and crossing bell signals.

Porcelain jar.

List No. Price each.
2655 Battery complete...\$2 90
RENEWAL CHARGE.

2656 1 Oxide Plate..... 55
2657 2 Zinc Plates..... 50
2658 1 Caustic Soda..... 28
2659 1 Bottle Oil..... 07

EXTRA PARTS.
2701 Porcelain Jar..... 50
2702 Porcelain Cover..... 45
2703 Copper Frames..... 40

List No. 2665. (Type S.)
SIZE OVER ALL $5\frac{3}{4} \times 13$ INCHES.

Capacity 300 ampere hours.
For fan motors, phonographs, electro-plating, chemical analysis, miniature lamps, sewing machines, X-Ray coils, railroad semaphore and crossing bell signals.

Porcelain jar.

List No. Price each.
2665 Battery complete...\$3 00
RENEWAL CHARGE.

2666 2 Oxide Plates..... 62
2667 2 Zinc Plates..... 50
2668 1 Caustic Soda..... 28
2669 1 Bottle Oil..... 06

EXTRA PARTS.
2704 Porcelain Jar..... 65
2705 Porcelain Cover..... 35
2706 Copper Frames..... 45

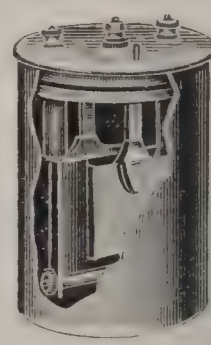
List No. 2670. (Type SS.)
SIZE OVER ALL $6\frac{3}{4} \times 12\frac{3}{4}$ INCHES.

Capacity 300 ampere hours.
For railroad semaphore signals.
Porcelain jar.

List No. Price each.
2670 Battery complete...\$3 25
RENEWAL CHARGE.

2671 2 Oxide Plates..... 62
2672 2 Zinc Plates..... 50
2673 1 Caustic Soda..... 28
2674 1 Bottle Oil..... 06

EXTRA PARTS.
2707 Porcelain Jar..... 90
2708 Porcelain Cover..... 40
2709 Copper Frames..... 45



List No. 2660. (Type V.)

List No. 2660. (Type V.)
SIZE OVER ALL $5\frac{3}{4} \times 8$ INCHES.

Capacity 150 ampere hours.
For marine and traction gas and gasoline engines, slot machines and portable battery for phonographs.
Liquid-tight steel enameled jar.

List No. Price each.
2660 Battery complete...\$2 50
RENEWAL CHARGE.

2661 1 Oxide Plate..... 31
2662 1 Zinc Plate..... 35
2663 1 Caustic Soda..... 17
2664 1 Bottle Oil..... 06

EXTRA PARTS.
2710 Steel Jar..... 80
2711 Porcelain Cover..... 35
2712 Copper Frames..... 35
2713 Gasket Rings..... 12
2714 Vent Nipples..... 03

List No. 2675. (Type W.)
SIZE OVER ALL $7\frac{1}{2} \times 15$ INCHES.

Capacity 600 ampere hours.
For Cautery batteries, dental motors, small power motors, sewing machines, X-Ray coils and Heiman centrifuge.

Porcelain Jar.

List No. Price each.
2675 Battery complete...\$4 85
RENEWAL CHARGE.

2676 2 Oxide Plates..... 1 10
2677 2 Zinc Plates..... 82
2678 1 Caustic Soda..... 52
2679 1 Bottle Oil..... 08

EXTRA PARTS.
2684 Porcelain Jar..... 1 65
2685 Porcelain Cover..... 35
2686 Copper Frames..... 45
2687 Copper Strips Straight and Twisted..... 10

List No. 2685. (Type Z.)
SIZE OVER ALL $4\frac{1}{2} \times 6\frac{3}{4}$ INCHES.

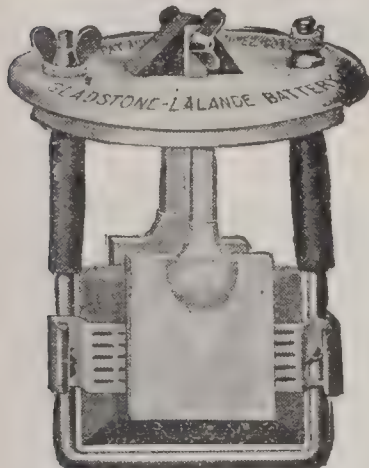
Capacity 100 ampere hours.
For marine and traction gas and gasoline engines, slot machines and portable battery for phonographs.
Liquid-tight steel enameled jar.

List No. Price each.
2685 Battery complete...\$2 00
RENEWAL CHARGE.

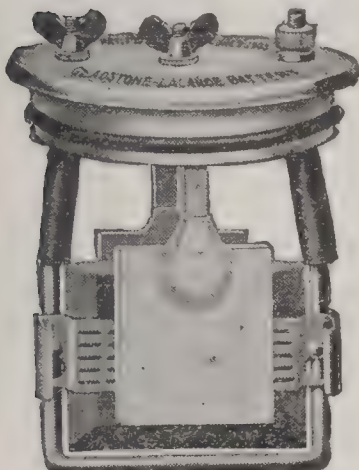
2686 1 Oxide Plate..... 24
2687 1 Zinc Plate..... 28
2688 1 Caustic Soda..... 15
2689 1 Bottle Oil..... 05

EXTRA PARTS.
2689 Steel Jar..... 60
2870 Porcelain Cover..... 25
2871 Copper Frames..... 30
2872 Gasket Rings..... 12
2873 Vent Nipples..... 03

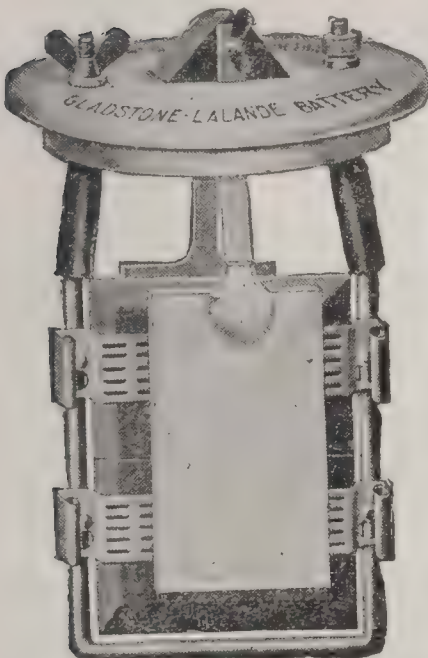
GLADSTONE LALANDE BATTERY.



List No. 2265. (G. 20.)
Without Jar.



List No. 2270. (G. 30.)
Without Jar.



List No. 2280. (G. 60.)
Without Jar.

List No. 2300. (Type G. 90.)
Enamel steel jar.

List No.	Price.
2300 Battery complete.....	\$3 50
RENEWAL PARTS.	
2301 1 Oxide Plate.....	55
2302 1 Double Zinc Plate.....	55
2303 1 Caustic Soda.....	28
2304 1 Bottle Oil.....	07

These renewals can be used with type AA Lalande cells.

The superior points of this battery over all others are : Constancy of current; absence of local action when not in use; extremely low internal resistance; simplicity in renewing.

The copper oxide plates are held in position by two perforated flat copper clamps, one of which is detachable, allowing a quick change of plates without the hands coming in contact with acid covered electrodes.

List No. 2260. (Type G. 10.)
Outside dimensions 4½x6¾ inches. Capacity 100 ampere hours. For use with gas and gasoline engines. Large annunciators. Telephones in constant use. Railroad crossing bells. Porcelain jar.

List No.	Price.
2260 Battery complete	\$1 50
RENEWAL CHARGE.	
2261 1 Oxide Plate.....	24
2262 1 Double Zinc.....	28
2263 1 Caustic Soda.....	15
2264 1 Bottle Oil.....	05

These renewals can be used with types BB and Z Lalande cells.

List No. 2270. (Type G. 30.)
Outside dimensions 5¾x8 inches. Capacity 150 ampere hours. For use on fresh water gasoline launches and portable gasoline engines. (For salt water service use porcelain jars). Enameled steel jar.

List No.	Price.
2270 Battery complete.....	\$2 50
RENEWAL CHARGE.	
2271 1 Oxide Plate.....	31
2272 1 Double Zinc.....	35
2273 1 Caustic Soda.....	17
2274 1 Bottle Oil.....	06

These renewals can be used with type V Lalande cells.

List No. 2280. (Type G. 56.)
Outside dimensions 5¾x13 inches. Capacity 300 ampere hours. Fan motor and phonograph model. Porcelain jar.

List No.	Price.
2280 Battery complete.....	\$3 00
RENEWAL PARTS.	
2281 2 Oxide Plates.....	62
2282 2 Zinc Plates.....	50
2283 1 Caustic Soda.....	28
2284 1 Bottle Oil.....	06

These renewals can be used with types S and SS Lalande cells.

List No. 2290. (Type G. 70.)
Outside dimensions 7½x15 inches. Capacity 600 ampere hours. For use with Cautey and Dental motors. Porcelain jar.

List No.	Price.
2290 Battery complete.....	\$4 85
RENEWAL PARTS.	
2291 2 Oxide Plates.....	1 10
2292 2 Zinc Plates.....	82
2293 1 Caustic Soda.....	52
2294 1 Bottle Oil.....	08

These renewals can be used with type W Lalande cells.

List No. 2265. (Type G. 20.)
Outside dimensions 5¾x8¾ inches. Capacity 150 ampere hours. For use with gas and gasoline stationary engines. Large annunciators and burglar alarms. Railroad crossing bells. Telephones in constant service. Porcelain jar.

List No.	Price.
2265 Battery complete.....	\$2 20
RENEWAL CHARGE.	
2266 1 Oxide Plate.....	31
2267 2 Zinc Plates.....	28
2268 1 Caustic Potash.....	17
2269 1 Bottle Oil.....	06

These renewals can be used with type Q Lalande cell.

List No. 2275. (Type G. 50.)
Outside dimensions 7¼x10½ inches. Capacity 300 ampere hours. For use with gas and gasoline stationary engines. Railroad crossing bells. Fire alarm and police telegraph. Fan motors and turn-tables. Porcelain jar.

List No.	Price.
2275 Battery complete.....	\$2 90
RENEWAL CHARGE.	
2276 1 Oxide Plate.....	55
2277 2 Zinc Plates.....	50
2278 1 Caustic Soda.....	28
2279 1 Bottle Oil.....	07

These renewals can be used with types R and RR Lalande cells.

List No. 2285. (Type G. 60.)
Outside dimensions 6¾x12¾ inches. Capacity 300 ampere hours. For use with railroad semaphore signals. Porcelain jar.

List No.	Price.
2285 Battery complete.....	\$3 25
RENEWAL PARTS.	
2286 2 Oxide Plates.....	62
2287 2 Zinc Plates.....	50
2288 1 Caustic Soda.....	28
2289 1 Bottle Oil.....	06

These renewals can be used with types S and SS Lalande cells.

List No. 2295. (Type G. 80.)
Outside dimensions 4½x6¾ inches. Capacity 100 ampere hours. Enamel steel jar.

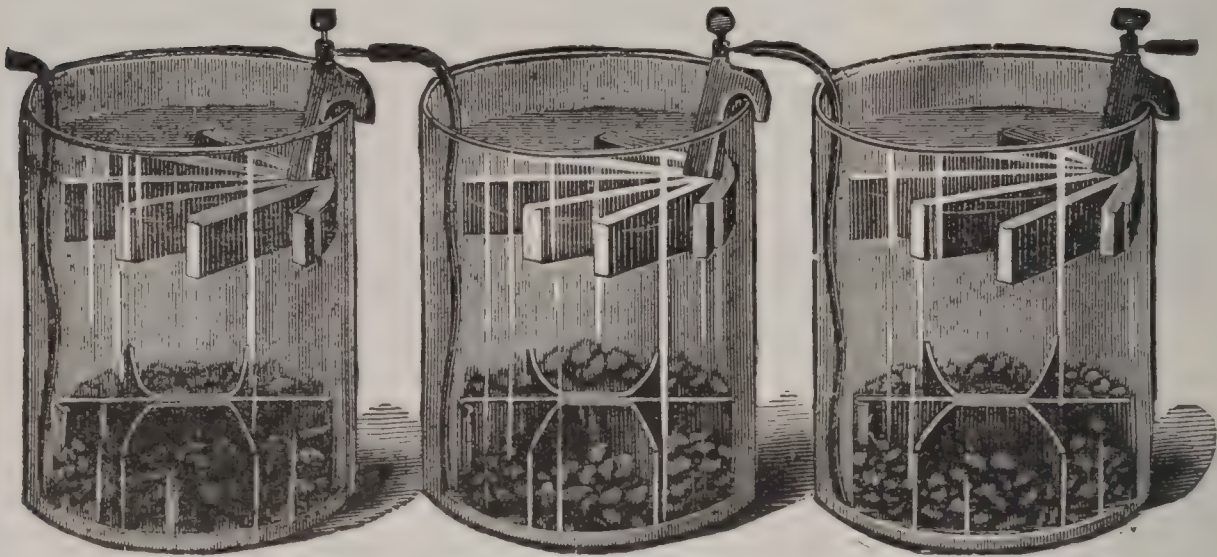
List No.	Price.
2295 Battery complete.....	\$2 00
RENEWAL PARTS.	
2296 1 Oxide Plate.....	24
2297 1 Double Zinc Plate..	28
2298 1 Caustic Soda.....	15
2299 1 Bottle Oil.....	05

These renewals can be used with type Z and BB Lalande cells.

Outside dimensions 7¼x10 inches. Capacity 300 ampere hours.

“CROW FOOT” GRAVITY BATTERY.

For Telegraph and Closed Circuit Work.



List No. 2510.

List No. 2515.

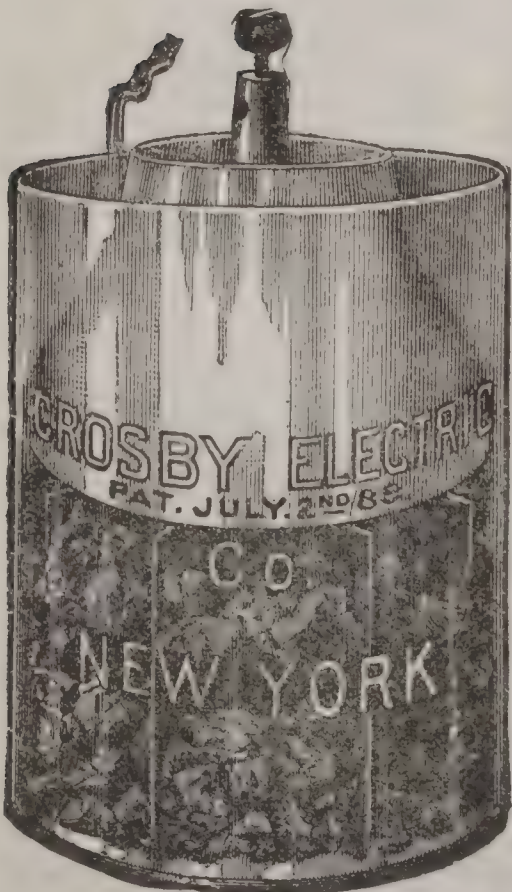
6x8 CROW FOOT BATTERY.

List No.	Price.
2510 Battery Complete, without Vitriol...	\$1 00
2511 Zinc, 3 lbs.....each,	56
2512 Glass Jar.....“	36
2513 Copper.....“	10
2514 Blue Vitriol..... per lb.	14

5x7 CROW FOOT BATTERY.

List No.	Price.
2515 Battery Complete, without Vitriol...	\$0 80
2516 Zinc, 1½ lbs.....each,	36
2517 Glass Jars.....“	34
2518 Copper.....“	09
2519 Blue Vitriol.....“	14

HUSSEY BLUE STONE BATTERY.



List No. 2535.

Constitutes a revolution in this class of batteries. Suitable for Motor, Fire Alarm, Train Signal, Medical or Open Circuit Work, and charging Storage Batteries. Its distinctive features are greatly increased amperage, cleanliness and convenient handling.

List No.	Price.
2535 Cell complete (without blue stone)...	\$1.50

RENEWAL PARTS.

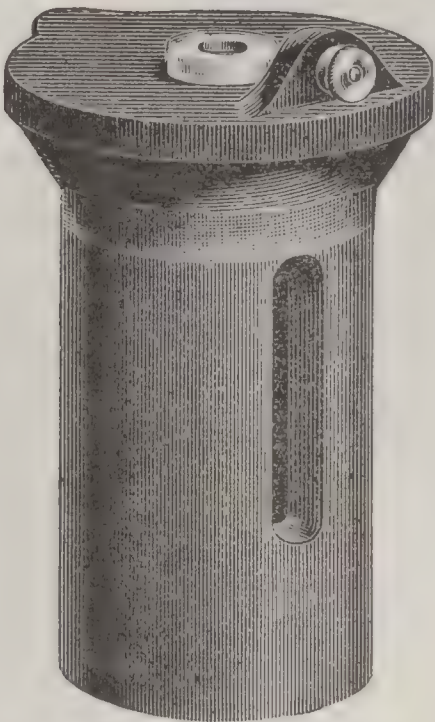
List No.	Price.
2536 Glass Jar.....each,	\$0.36
2537 Porous Cup.....“	.50
2538 Copper.....“	.24
2539 Zinc.....“	.50
2540 Blue Vitriol.....“	.14

Four pounds of blue stone constitute a charge for this battery.

CARBON CYLINDER OPEN CIRCUIT
BATTERY.



List No. 2400.



CUT $\frac{1}{8}$ SIZE.

List No 2401.

This Battery is perfectly uniform and reliable in action. Its electro-motive force is 1.5 volts, and its internal resistance is .7 of an ohm at the start and continues the same until the zinc is consumed or solution exhausted.

The Carbon element in the Battery is Indestructible, and is moulded in one piece, which forms a perfect seal for the Battery and prevents evaporation or the climbing of salts.

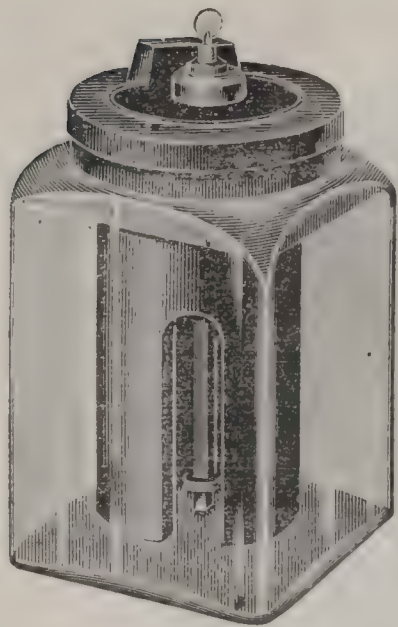
The zinc is suspended by a porcelain insulator through the centre of the Carbon Cylinder. The jars hold 32 ounces of solution.

The advantage claimed for this Battery is, that in case of a short circuit, the Battery can be made nearly as strong as when first set up, by thoroughly washing in warm water and drying the Cylinder in a hot oven and substituting new zinc and fresh Sal-Ammoniac.

The zinc furnished with this Battery is made from the best rolled zinc and well amalgamated.

List No.	Price.
2400 Complete Cell, with Sal-Ammoniac and Zinc.....each,	\$0.65
2401 Cylinder only, with Bushing.....	“ .40
2402 Glass Jar only.....	“ .15

LACLEDE CARBON BATTERY.



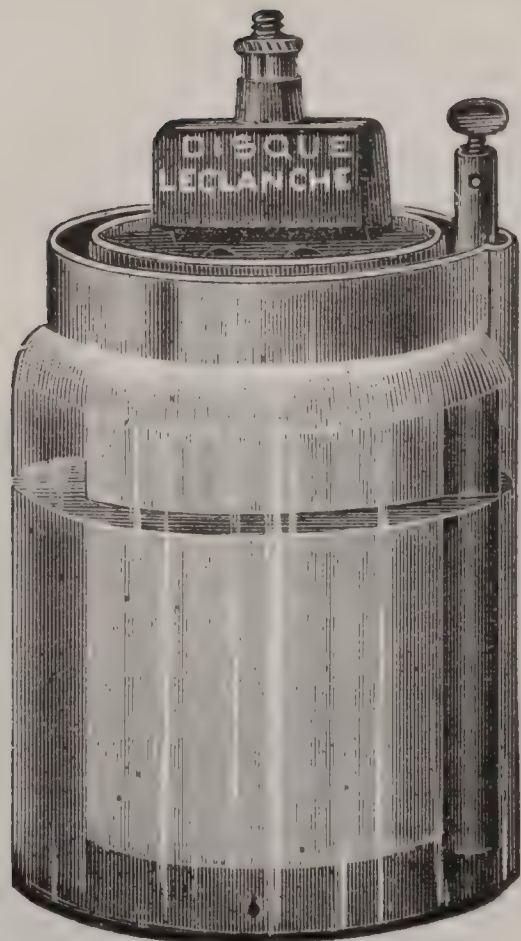
List No. 2404.

A popular form of Carbon Battery.
Strong, long lived, efficient.
Binding Post will not rust or corrode.

List No.	Price.
2404 Complete Cell. with Sal-Ammoniac.....	\$0.65
2405 Cylinder only.....	.40
2406 Glass Jar only.....	.15

DISQUE LECLANCHE BATTERY.

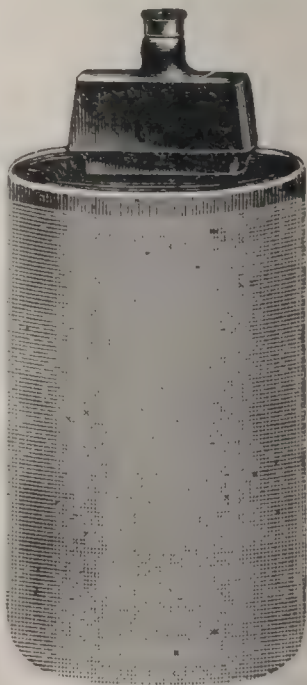
For all Open Circuit Work.



List No. 2408.

We guarantee these
Batteries equal, if not
superior, in every re-
spect, to any Disque
Leclanche Battery on
the market.

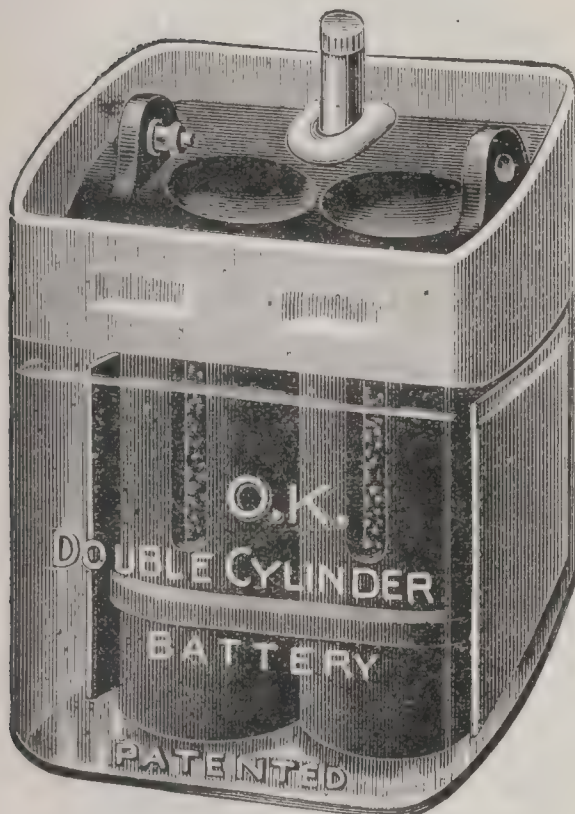
POROUS CUP.



List No. 2409.

List No.	Price.
2408 Complete.....	each, \$0.60
2409 Porous Cup only.....	" .35
2410 Glass Jars only.....	" .15

HIRLIMANN'S CARBON BATTERIES.



O. K. Complete.
List No. 2412.

THE O. K. DOUBLE CYLINDER CARBON BATTERY.

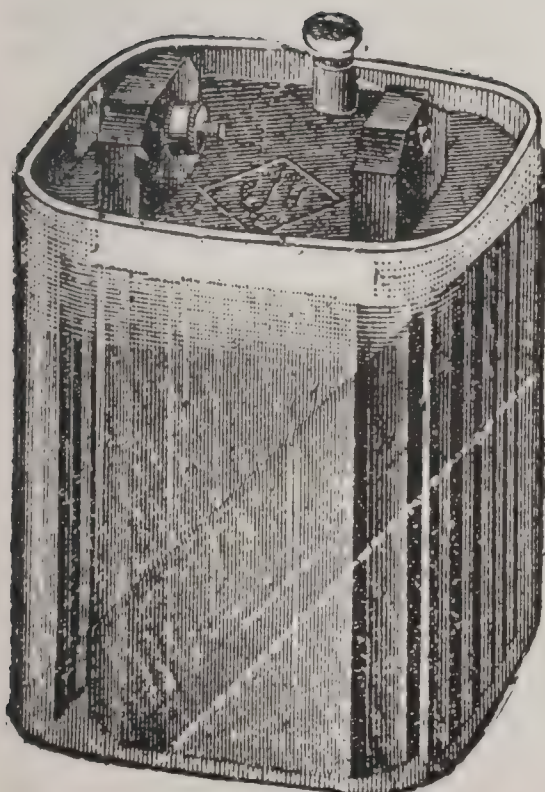
High Power, Long Life, Low Resistance.

It gives 10 to 15 Amperes. An increase in the E. M. F. of one volt over other Sal-Ammoniac Batteries.

It has Double Cylinders charged with imported Manganese. Extra heavy Zincs. Large fluid capacity. Heavy Glass Jar.

List No.	Price.
2412 Double Cylinder Carbon Battery complete	\$1 70
2413 Double Carbon only	1 00
2414 Glass Jar only	30
2415 Sal-Ammoniac (7 oz. pkg.)	16
2416 Zinc only	40
2417 Rubber Ring	05
2418 Porcelain Bushings	04

THE CHAMPION BATTERY.



List No. 2420.

This Battery may be used with the Rod Zinc for Telephone and other work where strain is steady, or with Corrugated Zinc for Gas Lighting, Bell Work, etc. With Corrugated Zinc internal resistance is one-sixth of an ohm.

List No.	Price.
2420 Champion Battery, Corrugated Zinc, complete	\$1 80
2421 Champion Battery, Rod Zinc, complete	1 60
2422 Carbon Vase, charged	1 10
2423 Glass Jar	30
2424 Cover	16
2425 Sal-Ammoniac (6 oz. pkg.)	10
2426 Corrugated Zinc	40
2427 Rod Zinc	14

GONDA BATTERIES.



THE "GONDA" BELL.

Size, $4\frac{1}{2} \times 4\frac{1}{2} \times 8$ inches.

List No.	Price.
2485 Battery complete.....	\$1 00

PARTS.

2486 Gondas per pair with rubber bands	45
2487 Carbon (mounted).....	14
2488 Glass Jar.....	20
2489 Glass Jar Cover.....	10
2490 Zinc.....	09
2491 Sal-Ammoniac, pkg.....	00
2492 Rubber Bands per pair.....	05



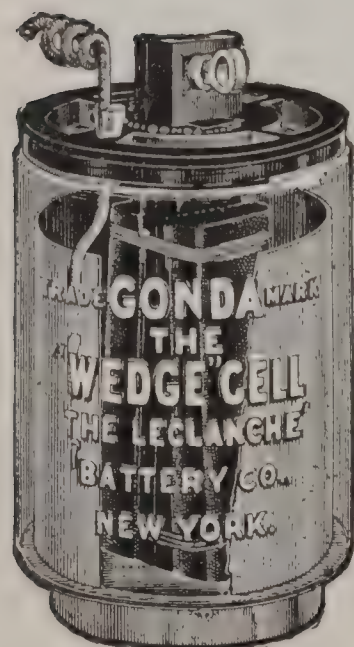
THE "GONDA" POROUS CELL.

Size, $4\frac{1}{2} \times 4\frac{1}{2} \times 8$ inches.

List No.	Price.
2475 Battery complete.....	\$0 70

PARTS.

2476 Gonda Porous Cup.....	40
2477 Glass Jar.....	20
2478 Zinc.....	09
2479 Sal-Ammoniac, pkg.....	09



THE "GONDA" WEDGE CELL.

Size, $4\frac{1}{2} \times 4\frac{1}{2} \times 8$ inches.

List No.	Price.
2428 Battery complete.....	\$1 15

PARTS.

2429 Gondas per pair with rubber bands	45
2430 Carbon (mounted).....	14
2431 Glass Jar.....	20
2432 Glass Jar Cover.....	14
2433 Zinc.....	25
2434 Sal-Ammoniac, per pkg.....	09

SAMSON BATTERY.

For Open Circuit Work Only.

List No. 2435.

(No. 1.) SIZE, 4x4x7 1/8 INCHES.

List No.		Price each.
2435	Complete Cell, new style.....	\$1.40
2436	Carbon Vase, " .....	.90
2437	Cylindrical Zinc, " .....	.22
2438	Glass Jar, " .....	.20
2439	Rubber Cover, " .....	.10
2440	Sal-Ammoniac Charge.....	.08
2441	Rubber Ring to Suspend carbon,	.07
2442	Rubber Plugs (per set of three,)	.08

List No. 2450.

(No. 2.) SIZE, 4 1/2 x 4 1/2 x 8 INCHES.

(New Style.)

List No.		Price each.
2450	Complete Cell, new style.....	\$1.60
2451	Carbon Vase, "	1.10
2452	Cylindrical Zinc, " .....	.24
2453	Glass Jar, " .....	.20
2454	Rubber Cover " .....	.10
2455	Sal-Ammoniac Charge.....	.10
2456	Rubber Ring to suspend carbon,	.08
2457	Rubber Plugs (per set of three,)	.09

BATTERY DIRECTIONS.

"Electropoion" Fluid.—Mix one gallon sulphuric acid and three gallons of water; then in a separate vessel, dissolve six pounds bichromate of potash in two gallons of boiling water, mixing the whole thoroughly together. When cold, it is ready for use.

Grenet Battery Fluid.—To three pints of cold water add five fluid ounces of sulphuric acid; when cold, add six ounces (or as much as the solution will dissolve) of finely pulverized bichromate of potash. Mix it well. Pour the above solution into the glass cell until it nearly reaches the top of zinc when lowered. The fluid should not touch the zinc when it is drawn up.

To Amalgamate Zinc.—Immerse the zincs in a solution of dilute sulphuric acid and then in a bath of mercury. A brush or cloth may be used to rub them, so as to reach all points of the surface.

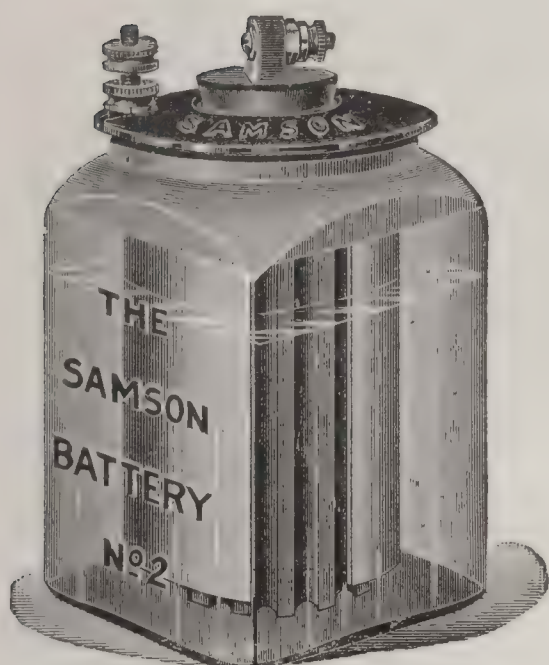
The Fuller Mercury-Bichromate Battery.—Amalgamate the zinc and its copper rod in the usual way.

Place the zinc in the porous cell and then pour into the latter a tablespoonful of mercury. Then fill the porous cell with water to within about two inches from the top.

Place the porous cell and the carbon in their positions in the jar, as shown in the cut of the battery. Then fill the jar to within two or two and one half inches from the top with a mixture of three parts of electropoion fluid to two parts of water.

The zinc should be lifted out occasionally and the sulphate washed off. Keep a supply of mercury in the porous cell, so as to have the zinc always well amalgamated. If the battery does little work, it will last three or four months without being touched.

To renew, clean all deposits from carbon and zinc, and set up with fresh solution as above.



THE MESCO DRY BATTERY.

THE MOST POPULAR DRY BATTERY MANUFACTURED!

Why ?

The best obtainable materials are used in its construction.

Because..

There is no deterioration when not in use.

It gives the longest and steadiest service on intermittent work.

It keeps the Expense Account down!

WHY WE CAN KEEP IT IN THE HIGH GRADE CLASS AND SELL AT A LOW PRICE!

The Carbon is purchased from the Gas Retorts and ground in our Mills.

The Manganese is delivered direct from the Mines and pulverized at our Works.

Because..

The Plates are Moulded and Carbonized in our Carbon Works.

The Zinc Cups are manufactured by us.

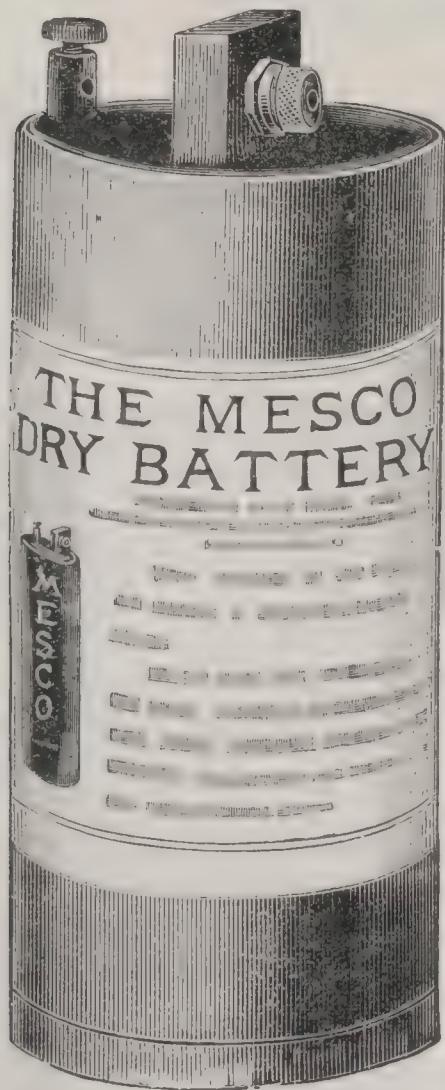
The Connectors are made by automatic machinery in our Factory.

We have made and sold more Dry Batteries than any other manufacturer in the world.

In every instance where a comparative test has been made by computation of timed service and cost, it has been demonstrated that the "Mesco" would save from 25 to 40 per cent. of the Battery service expense.

THE MESCO DRY BATTERY.

PATENTED IN UNITED STATES, GREAT BRITAIN, FRANCE AND CANADA.



List No. 2385.



List No. 2388.

For Call Bells, Annunciators, Burglar Alarms, Telephones, Medical Apparatus, the Laboratory, and all Open Circuit use.

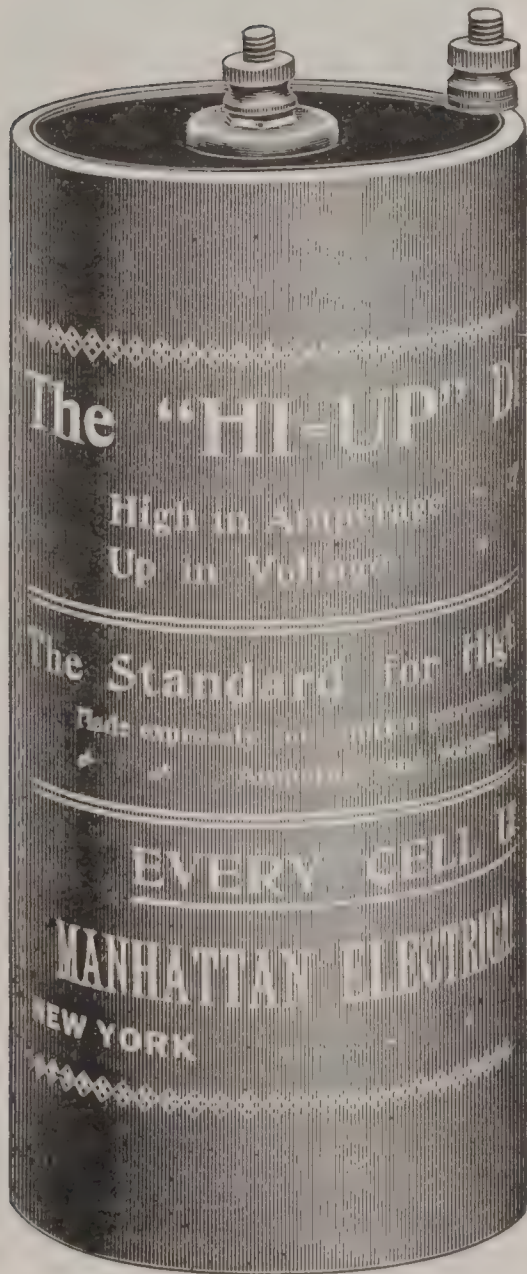
List No.	Price.
2385 Is the regular standard size of the Mesco Dry Battery (round) is 2 x 6 3/4 inches, each	\$0.25

ROUND.			RECTANGULAR.		
List No.	SIZE.	PRICE EACH.	List No.	SIZE.	PRICE EACH.
*2380	1 1/4 x 3	\$0.20	2387	1 x 1 1/2 x 3 1/4	\$0.40
2381	1 1/2 x 4	.30	2388	1 3/8 x 1 3/4 x 4 1/2	.40
2382	1 3/4 x 4	.32	2389	1 3/4 x 2 1/4 x 5 1/2	.40
2383	2 x 4 1/2	.30	2390	2 x 2 5/8 x 6 3/4	.50
2384	2 1/2 x 6	.25	2391	2 1/4 x 2 3/4 x 7	.75
2385	2 1/2 x 6 3/4	.25			
2386	3 3/8 x 6 3/4	.50			
2395	3 1/2 x 7	.75			

*No Linding Posts.

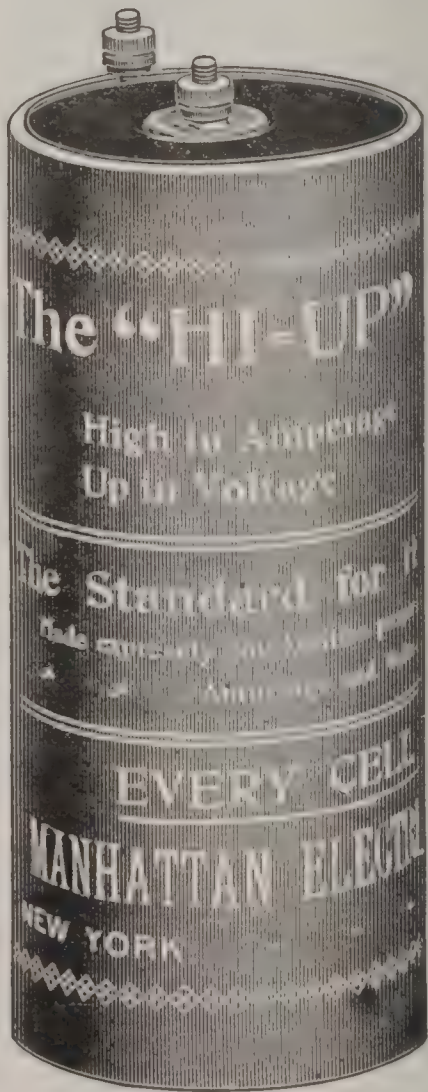
Special Sizes Made to Order.

THE "HI-UP" DRY BATTERY.
FOR GAS ENGINE IGNITION.



List No. 2396.

Amperage 27 to 30. Voltage 1 ⁶/₁₀.



List No. 2397.

Amperage 22 to 25. Voltage 1 ⁶/₁₀.

Specially recommended for Automobiles, Launches, Stationary Gas and Gasoline Engines.

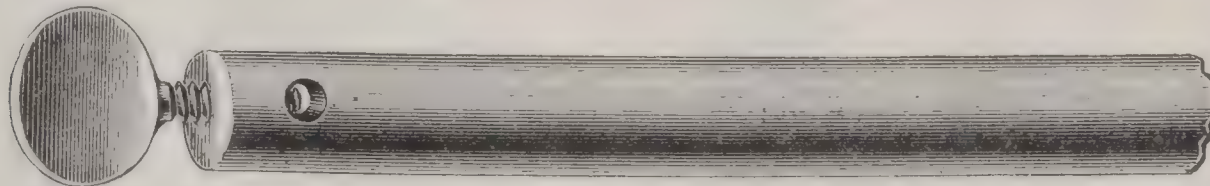
In this cell is embodied the latest development of dry battery construction, and it is pre-eminently the best dry cell made for gas engine ignition or any other service where high Amperage and Voltage is required. Made in two sizes only.

List No.		Price.
2396	Size, 7½ x 3¼ inches.....	\$1 00
2397	" 6½ x 2¾ "	50

BATTERY ZINCS.

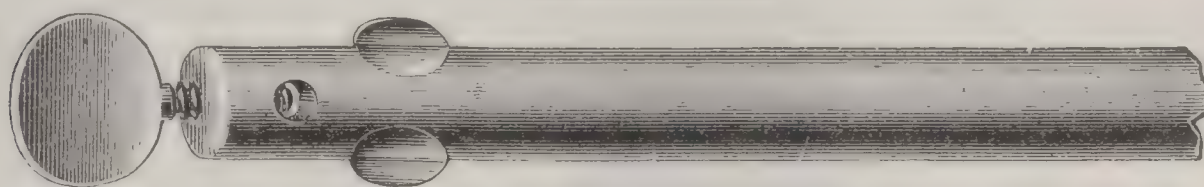
All are of the Best Quality Zinc, and Well Amalgamated.

Regular size, 6½ inches long, ⅜ inch diameter. Special sizes made to order.



List No. 2845. ROLLED ZINC.

List No.		Price.
2845	For Leclanche Battery.....each,	\$0.05
"	" " ".....Per 100,	4.50



List No. 2846. ROLLED ZINC.

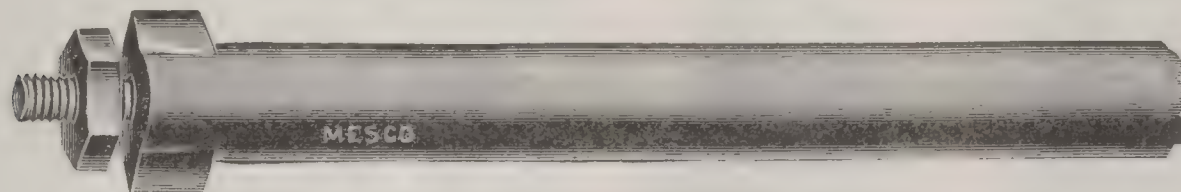
List No.		Price.
2846	For Carbon Cylinder Battery.....each,	\$ 0.05
" " "	" "Per 100,	4.50



List No. 2847. COMPOSITE.

(Cast Zinc with 5% Alloy of Mercury.)

List No.	(Cast Zinc with 5% Alloy of Mercury.)	Price.
2847	For Leclanche Battery.....each,	\$0.05
	.....Per 100,	4.50



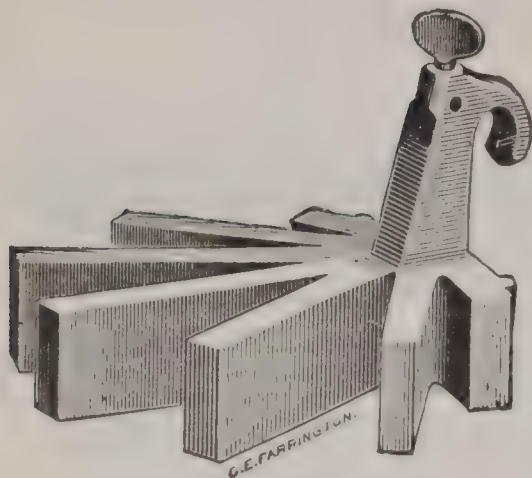
List No. 2848. COMPOSITE.

(Cast Zinc with 5% Alloy of Mercury)

[illegible]List No 2849. **SQUARE ROLLED.**

List No.		Price
2849	For Leclanche Battery (not amalgamated).....each,	\$0.05
" " " " "	.....Per 100,	4.50

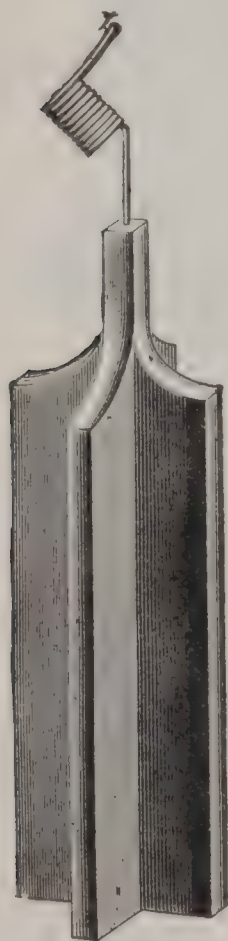
BATTERY ZINCS.

**Crowfoot Pattern Zinc.**

List No.	List No. 2855.	Price.
2855	Weight, 3 lbs.; jar 6x8 in.....each,	\$0 50
2856	" 1½ " " 5x7 "	32

**Boston Pattern Fire Alarm Zinc.**

List No.	List No. 2858.	Price.
2858	With B Post, 4 lbs.; jar, 6x8.....	\$0 75
2854	Without B Post, 4 lbs.; jar, 6x8.....	70

**Daniell Pattern Zinc.**

List No. 2859.

List No.	Price.
2859	Weight, 2 lbs.; width, 2 inches; standard.each,

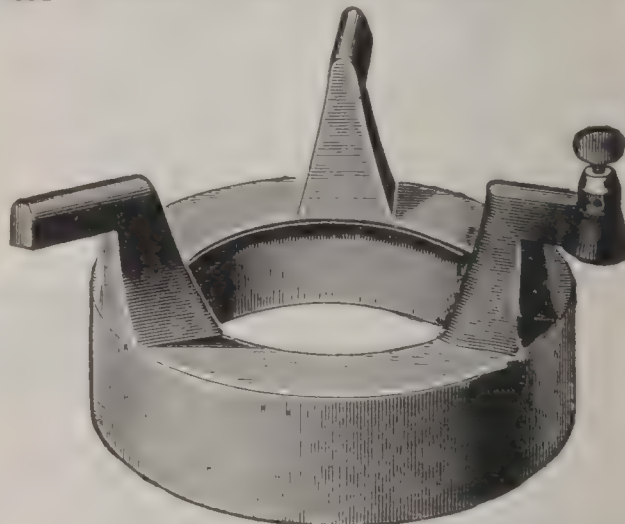
\$0 40

**Hussey Zinc.**

List No. 2860.

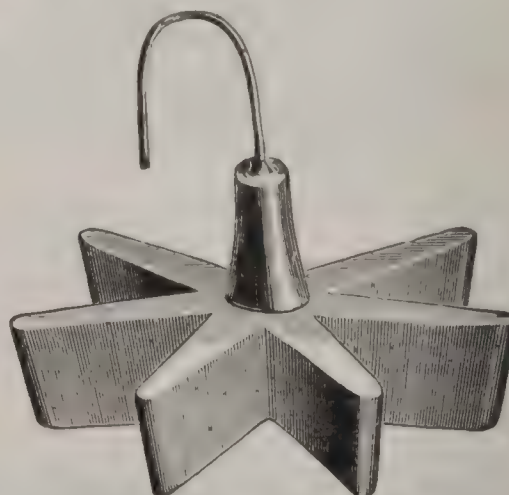
List No.	Price.
2860	Height, 5¾ in.; width at Base, 2⅞ inches...each,

\$0 50

**Balto. F. A. Zinc.**

List No. 2861.

List No.	Price includes Binding Post.	Price.
2861	Weight, 3 lbs.; jar, 6x8 in....each,	\$0 55
2862	" 4 " " 6x8 "	75

**Callaud Pattern Zinc.**

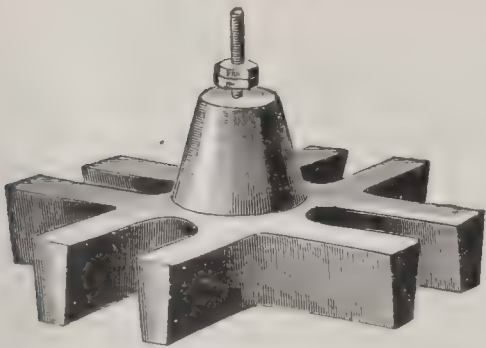
List No.	List No. 2863.	Price.
2863	Weight, 2 lbs.....each,	\$0 40

The above patterns are furnished cast from commercial or composite zinc. The prices quoted are for the former.

Composite zincs are composed of an alloy of **Zinc and Mercury**, maintaining a perfectly clear and bright surface until entirely consumed, and therefore require no cleaning.

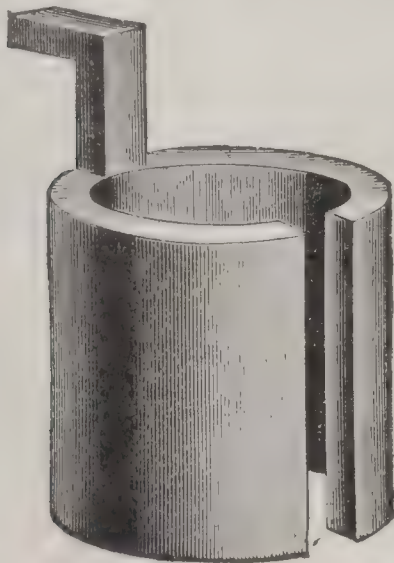
Other patterns of zincs promptly supplied at lowest prices.

**A. D. T. Pattern Lockwood
Zinc.**



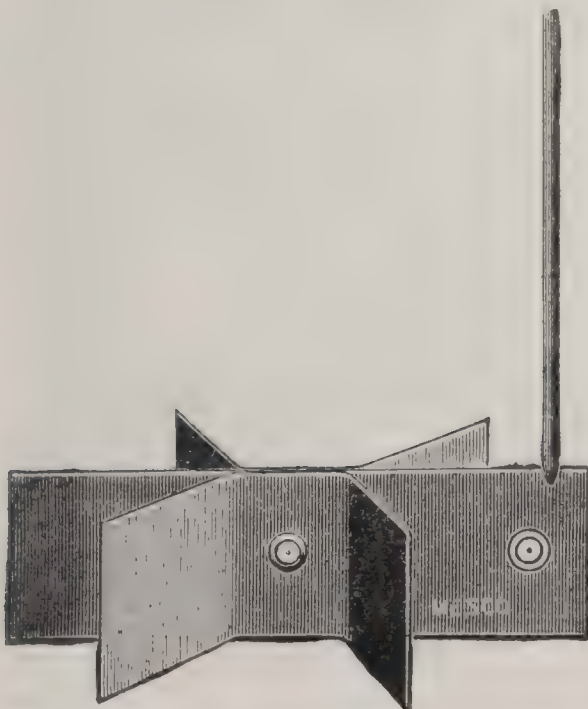
List No.	List No. 2875.	Price.
2875	Each.....	\$0 30

Grove Battery Carbon Zinc.



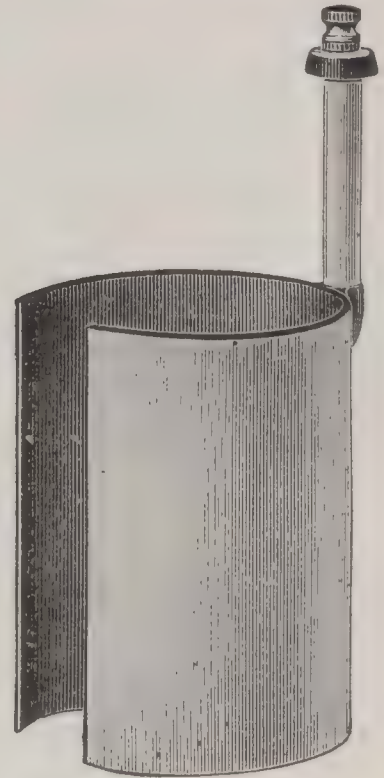
List No.	List No. 2876.	Price.
2876	For No. 1 Battery....each,	\$0 36
2877	" " 1 1/2 " "	45
2878	" " 2 " "	2 00

Battery Copper.



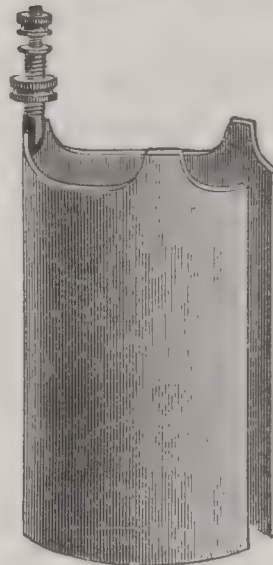
List No.	List No. 2879.	Price.
2879	6 x 8.....each,	\$0 10
2880	5 x 7....."	10

National Zinc.



	List No. 2882.	Price.
2882	For No. 2 Battery, ea.	\$0 22

**Samson
Battery Zincs.**

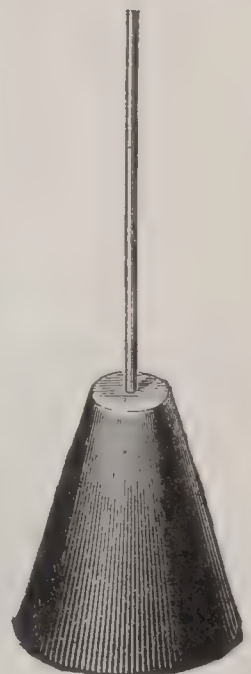


	List No. 2883.	Price.
2883	No. 1.....each,	\$0 22
2884	" 2....."	24

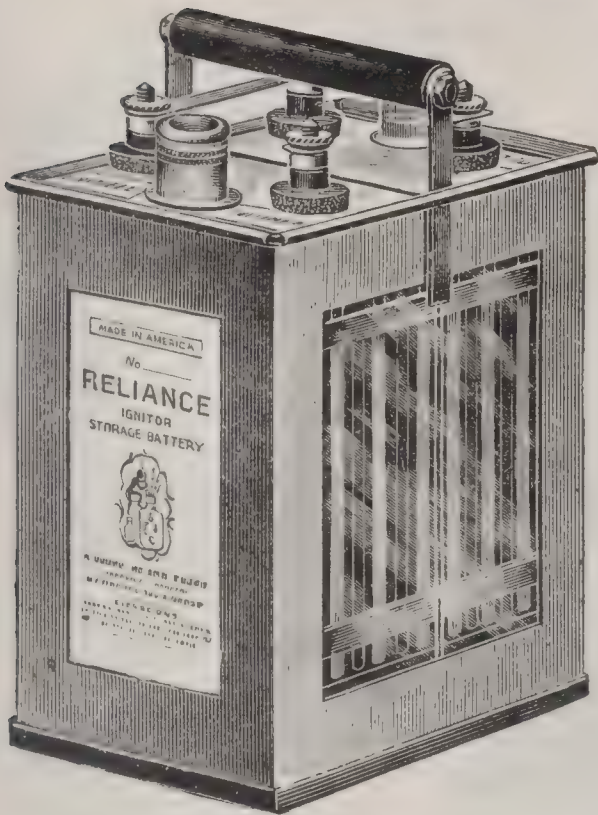
Fuller Zinc.

List No. 2889.

List No.	Price.
2889	For No. 2575 Battery, Each.....\$0 16
2890	For No. 2585 Battery, Each..... 20



STORAGE BATTERIES.



THE RELIANCE STORAGE BATTERY.

(Celluloid Jars.)

This Battery has been designed in every detail to meet the requirements of the Gasoline Automobile and Launch engines.

The Jars are made of Transparent Celluloid. All seams are reinforced, making the toughest and most acid-proof battery jar ever constructed, with the additional advantage of being transparent, allowing the interior of the battery to be visible through the open panelled iron box. The iron box is finished in aluminum.

The Plates are designed to meet the hardest service. They are suspended from the sides of the jar by celluloid projections that form part of the jar. Short circuiting cannot take place from sediment that may drop to the bottom of the jar.

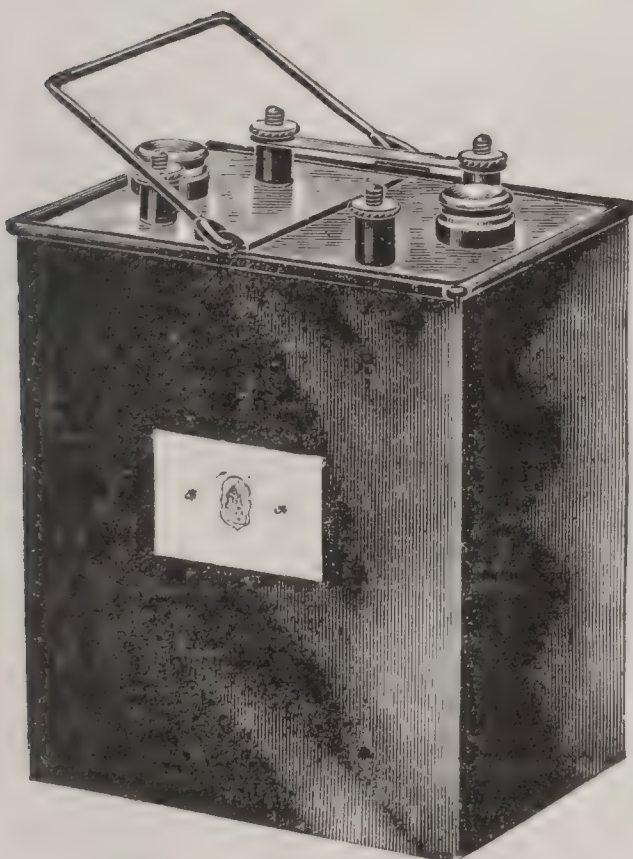
The patented Vent Plug prevents spraying of electrolyte.

The Handle is of hard rubber and telescopes into the case.

List No.

Price.

12944	2 Cells, Voltage 4, capacity 50-ampere hours, weight 25 pounds, 6¾ inches long, 5 inches wide, 8½ inches high.....	\$24 00
12945	3 Cells, Voltage 6, capacity 50-ampere hours, weight 37 pounds, 10 inches long, 5 inches wide, 8½ inches high	36 00



THE RELIABLE STORAGE BATTERY.

(Hard Rubber Jars.)

This Battery is made up of the same size and type of plates as the "Reliance." It is set up in Hard Rubber Jars.

The Casing consists of a galvanized iron box, japanned.

The Cells are sealed with Hard Rubber Covers cemented in place. The patented Non-Spraying Vent Plugs are furnished with this type.

The Handle is of wire, as illustrated.

The Two-Cell Four Volt Battery is the size used in most automobiles. For greater mileage two sets are recommended in preference to larger sizes, as a reserve capacity is therefore available and one set may be left for recharging while the other is in operation.

List No.

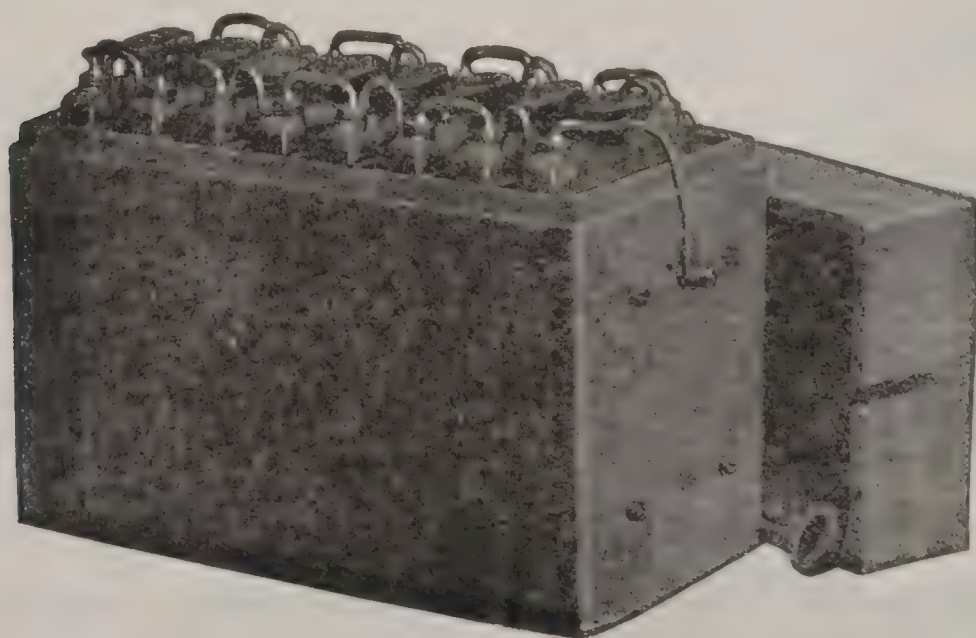
Price.

12946	2 Cells, Voltage 4, capacity 50-ampere hours, weight 26 pounds, 6¾ inches long, 5 inches wide, 8½ inches high.....	\$18 00
12947	3 Cells, Voltage 6, capacity 50-ampere hours, weight 39 pounds, 10 inches long, 5 inches wide, 8½ inches high.....	27 00

APPLE STORAGE BATTERIES FOR GAS ENGINE IGNITION.



The Apple Lead Bottle Storage Battery is built up of units, each unit being completely enclosed and unbreakable. A rubber tube acts as a controlling vent for acid fumes that may be generated by the chemical action of the battery, by this means vapor is dropped to ground instead of on top of battery. Light weight. Large output.



Cut shows 8 Cells of Lead Bottle Battery in Case ready for use.

List No.				Price.
12950	2 Volt, 30-ampere hours			\$ 5 00
12951	4 " " "			10 00
12952	6 " " "			12 00
12953	8 " " "			16 00
12954	10 " " "			20 00
12955	2 " 60-ampere			8 00
12956	4 " " "			16 00
12957	6 " " "			24 00
12958	8 " " "			32 00
12959	10 " " "			40 00

BATTERY SUPPLIES.



BLUE VITRIOL.

List No.	Price.
2992 Blue Vitriol, per pound.....	\$0 12
In barrel lots lowest market price.	

SAL-AMMONIAC.

2991 99 per cent pure, per pound	15
In casks, lowest market price.	

BICHROMATE OF POTASH.

2990 Per pound	25
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ELECTRIC SAND.

Electric Sand forms Electropoion Fluid when dissolved in water; can be used in all Acid Batteries.

List No.	Price.
13072 One pound cans, per pound....	\$0 30

QUICKSILVER. (Mercury)

2993 Per pound	\$1 50
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SULPHATE OF ZINC.

2995 Per pound	20
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INSTRUMENT LACQUER.

2998 Blue, per bottle.....	75
2999 Colorless, per bottle	85
3000 Yellow, per bottle	75

CARBON.

3001 Granulated, for Leclanche Battery, per pound.....	10
3002 Fine, for experimental use, per pound.....	10
3003 Powdered, for Dry Batteries...	10

OXIDE OF ZINC.

List No.	Price.
2994 Per pound	\$0 25

PARAFFINE.

2996 Per pound	25
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WAX.

For Sealing Dry Batteries, etc.

2997 Per pound	15
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PARAFFINE OIL.

3006 Including Bottle, per quart.....	50
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MANGANESE.

3004 Granulated, per pound	15
3005 Powdered, per pound	15

ELECTROLYTE.

For Storage Batteries.

13073 Per 100 pounds.....	05
Carboys, each	1 50

BATTERY BOXES FOR LECLANCHE OR CARBON BATTERIES.

Made of White Wood filled and varnished.

List No.	Price.
13075 2 Cell, 10 inches long, 5 inches wide, 10 inches high.....	\$1 50
13076 3 " 15 " 5 " 10 "	1 65
13077 4 " 20 " 5 " 10 "	1 75
13078 5 " 25 " 5 " 10 "	1 80
13079 6 " 15 " 10 " 10 "	1 95

FOR BATTERIES IN 6 X 8 JARS.

13080 2 Cell, 14 inches long, 7 inches wide, 11 inches high.....	1 50
13081 3 " 21 " 7 " 11 "	1 60

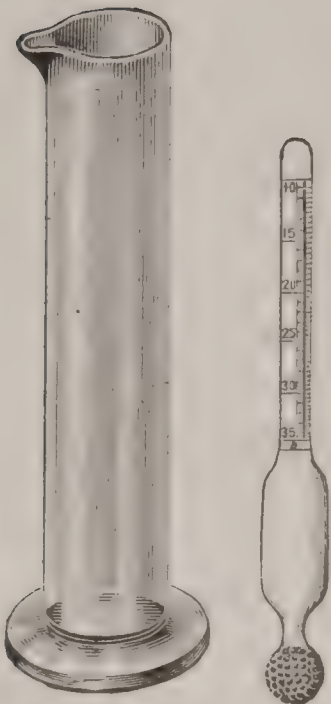
BATTERY SUPPLIES.

HYDROMETERS.

For testing the strength of the acid in Storage Batteries or any liquid heavier than water.

These Instruments have Specific Scales 1.100 to 1.350 and Baume Scales 10° to 35° on same stem.

List No.		Price.
3020	Plain Hydrometer	\$0 75
3022	Flat Bulb Hydrometer.....	75



HYDROMETER JAR.

For use with above Hydrometers.

Height, six inches.

3023	Jar only.....	30
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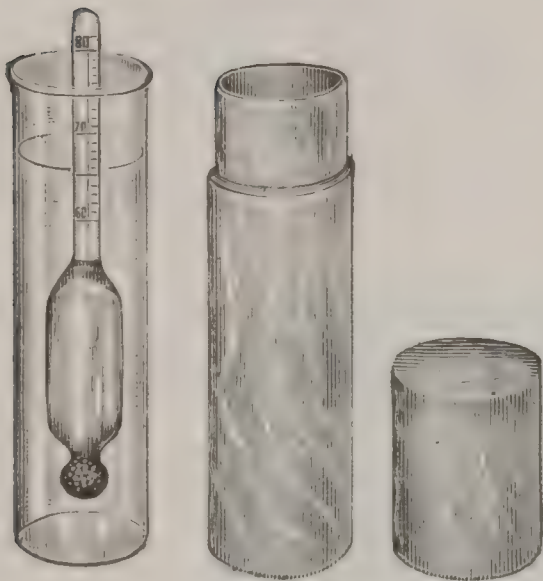
IMPROVED GASOLINE HYDROMETER

For Automobile and Motor Boat Kits.

This Hydrometer is combined with an accurate Thermometer, so that the temperature may be seen at a glance on the same scale, the correction table is laid off, showing the number of degrees to add or subtract from the Hydrometer reading, at the various temperatures above or below 60° F.

Put up with full directions for use, in a nickel case, size 1x6 inches.

List No.		Price.
3024	Improved Hydrometer, complete	\$1 50



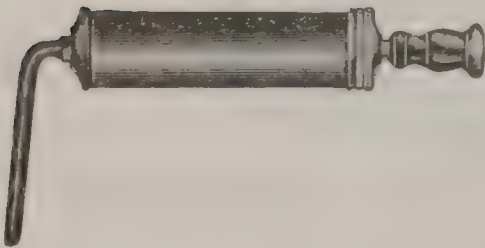
PLAIN GASOLINE HYDROMETER.

Same as above but without Thermometer.

3029	Plain Hydrometer	75
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BATTERY SYRINGE.

List No.		Price.
4926	Syringe, complete	\$3 00
4927	Extra Pipes.....	50
4928	" Valves	40



BATTERY FUNNELS.

List No.		Price.
3015	1/2-Pint size, Hard Rubber	\$0 50
3016	1 " " " "	1 00
3017	1 quart " " " "	1 50
3018	1 " " glass	60

GRADUATES.

List No.		Price.
3019	16-ounce, Glass	\$1 00

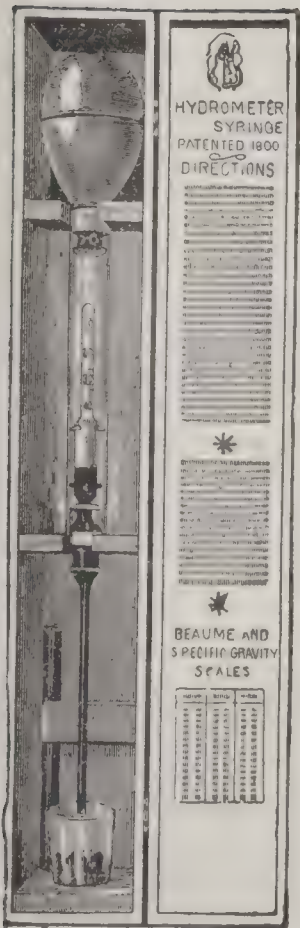
BATTERY BRUSHES.

List No.		Price.
3011	2 Rows, per dozen	\$1 80
3012	3 " " " "	4 00
3013	4 " " " "	5 00



BATTERY SUPPLIES.

THE HYDROMETER SYRINGE.



An Instrument for testing the specific gravity of a liquid without resorting to the tedious and unclean method of pouring the liquid into a separate vessel.

It is also a Syringe for filling Storage Batteries with acid and regulating the quantity above the plates.

While this instrument is designed for use in connection with Storage Batteries, it is as well adapted for testing the fluid of any kind of Battery or any bottled or barreled liquid. Special Hydrometers are provided for any class of work.

The Hydrometer Syringe consists of a specially designed Hydrometer within a glass tube, with a suction bulb at the top, and a hard rubber nozzle at the bottom. The Hydrometer is free to rise and fall, and is guided in its motion by projections on the bulb so that its stem can not touch the sides of the tube, and indicates the specific gravity of the liquid that has been drawn in by the suction of the bulb.

The manner of use is shown by the illustration.

A Special Nozzle is furnished for regulating the quantity of acid in the Cells and above the Plates as shown in the small cut.

The Hydrometers furnished are graduated with the Baume (10° to 40°) and Specific Gravity (1.100 to 1.350) Scales.

The Instrument is put up in a polished hardwood box with hinged cover, ready to be hung on the wall. Brackets in the box support the instrument, and a drip cup with sponge collects the drainage.

Directions for its use, and the comparison of the Baume and Specific Gravity scales, are in the cover of the box.

The instrument is 19 inches long. The case is 21 inches long by 3½ inches square.

List No.		Price.
12961	Complete Instrument in Oak Box, with Plain and Filler Nozzles	\$6 00
12962	Complete Instrument in Pine Box, with Plain Nozzle only.	4 50

PARTS.

12963	Extra Hydrometer	1 00
12964	Extra Rubber Bulb.....	1 00
12965	Extra Glass Tube.....	25
12966	Plain Nozzle.....	40
12967	Filler Nozzle.....	50



BULB SYRINGE.

For regulating the quantity of acid in batteries, etc.

This is made with Heavy, Quick Acting Rubber Bulb. Capacity 8 ounces. Furnished with a straight and bent nozzle, packed in wooden box.

List No.		Price.
12968	Complete	\$1 50
12969	Extra Bulb with Fitting.....	1 00
12970	Extra Nozzles	35

BATTERY SUPPLIES.

UNIVERSAL BATTERY GAUGE.

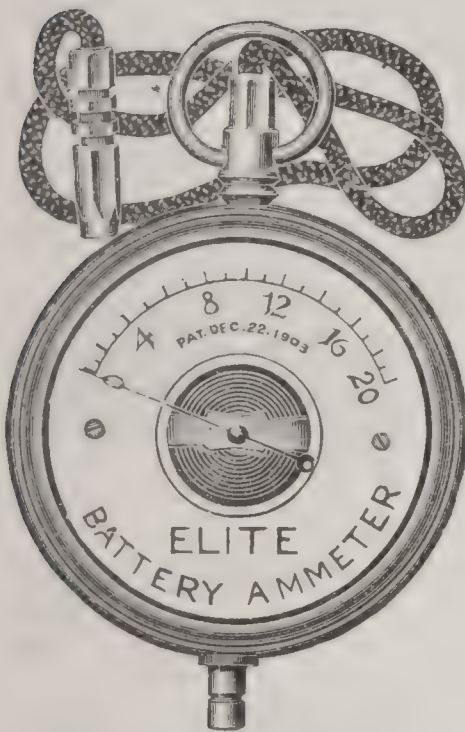


Of the many types of Battery Gauges that have been offered the public, the Warner pattern has given by far the best satisfaction, but the heretofore high price of this type of gauge has been detrimental to the general use of it. The Universal Battery Gauge is constructed similar to the Warner, is sold at a popular price and is made in two styles—one for testing a single cell (List No. 3349) and the other for testing from two to five cells in series (List No. 8634). List No. 3349 is quite accurate for measuring voltage. A battery showing 25 on this gauge has a voltage of 1. When the gauge registers 38, the battery has a voltage of about $1\frac{1}{2}$.

A handy device is a Detachable Flexible Conductor ten inches long, with a Metallic Tip; this attached to the Insulated Binding Post allows the Case to be used on one Post of Battery and the tip of the Cord for the opposite Post. This Cord is extra and not included in price of the gauges.

List No.	Price.
3349 One Cell	\$6 00
8634 Two to Five Cells	7 00
9167 Detachable Cord, 10 inches long.....	50

These Gauges are guaranteed and no charge for repairs will be made for the first year.



THE ELITE POCKET AMMETER.

For Battery Testing.

Ready for use with Flexible Cord attached to upper Contact.

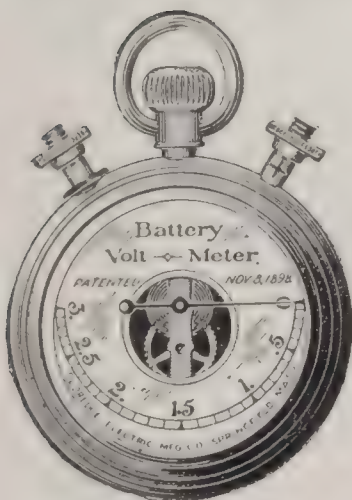
Works regardless of polarity.

This Instrument is the same size as a watch and is made with the same care. Has hardened and polished pivots. Each one is carefully calibrated and will give perfect satisfaction.

Each Instrument is contained in a neat Leather Case.

Made 0 to 20 and 0 to 30 amperes at same price.

List No.	Price.
12982 Elite Pocket Ammeter	\$5 00



Cut $\frac{1}{2}$ size.
List No. 3351.

ELBRIDGE POCKET BATTERY VOLTMETERS.

A convenient and practical instrument for use with Primary or Storage Batteries. Its range will cover two cells of Primary or one cell of Storage Battery.

The instrument is "dead beat." Binding Posts have non-removable nuts.

Size of an ordinary watch, heavily nickel-plated.

List No.	Price.
3351 Range 0 to 3 Volts.....	\$6 00
8630 " " 5 "	6 50
8631 " " 6 "	7 00
8632 " " 10 "	8 50

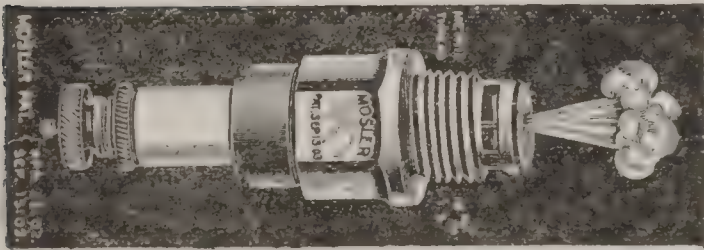
IGNITION SUPPLIES.

STA-RITE SPARK PLUGS.

The Sta-Rite Plugs have double air space self-packing Joints, and short protected Point. The best imported porcelain used.



List No.	Mfg. No.		Price.
12984	4	1/2-inch Pipe Th., 7/8-inch diameter 14 Th., 3 inches long, 3/4-inch shoulder to point.....	\$1 50
12985	6	French Metric, 18 mm., 4 5/4-inch diameter 17 Th., 2 7/8 inches long, 7/8-inch shoulder to point ..	1 50
12986	14	1/2-inch Pipe Th., 7/8-inch diameter 14 Th. 3 inches long, 1-inch shoulder to point.....	1 75
12987	15	1/2-inch Pipe Th., 7/8-inch diameter 14 Th., 3 3/4 inches long, 1 3/8 inches shoulder to point. Fits Winton.....	1 50
12988	22	French Metric, 18 mm. 4 5/4-inch diameter 17 Th., 2 5/8-inch long, 5/8-inch shoulder to point. Double Porcelain	1 50
12989	23	Same as No. 4 except that it is separable, readily taken apart for cleaning without disturbing packing.....	1 75



"SPIT FIRE" SPARK PLUG.

These Plugs actually "spit fire" and give energetic ignition and greater power. Genuine Iridium Platinum Points used on these Plugs.

STANDARD SIZES.

List No.		Price.
12990	1/2-inch Pipe, Thread Short.....	\$1 50
12991	1/2 " " " Long	1 50
12992	3/8 " " "	1 50
12993	Metric, 18 mm., 1.5 Short.....	1 50

SPECIAL SIZES.

12994	Metric, 18 mm., 1 5 long.....	2 00
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If name of car is given when ordering, mistakes will be avoided. With protector for porcelain 50c additional.



"DE DION" STYLE SPARK PLUG.

This is a good Spark Plug at a very low price. Made in Metric and 1/2-inch American Pipe Standard Thread.

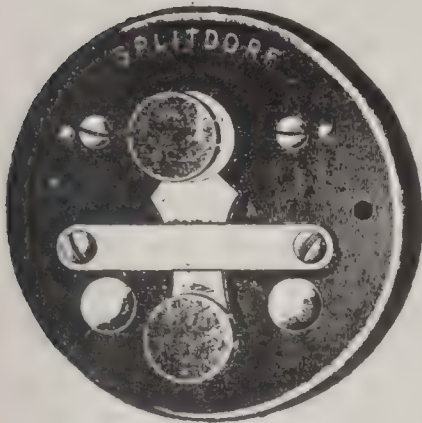
List No.		Price.
12995	Metric, 18 mm. Thread	\$1 00
12996	1/2-inch Thread	1 00

IGNITION SUPPLIES.

CUT-OUT SWITCHES.

For Gas Engines.
3 inches in diameter.

This Switch has two points and can be used with two sets of Batteries, or one set and Dynamo. If Plug is removed current cannot be turned on.



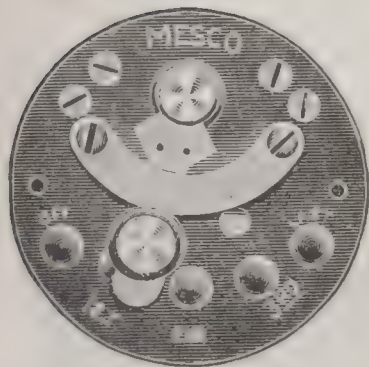
List No.	Price.
12998 Cut-out Switch, complete.....	\$1 50
12999 Extra Plugs.....	50

THE "ECONOMY" AUTOMOBILE SWITCH.

The "Economy" Switch is designed to increase the life and use of Primary Batteries. It is neat and attractive in appearance, substantially constructed. If used as per instructions, it will more than double the life of the batteries.

OPERATION.

Switching on First Point.	First set of Batteries.
" " Second "	Second set of Batteries.
" " Third "	Both sets in Multiple Series.
" " Fourth "	Two sets in Series.

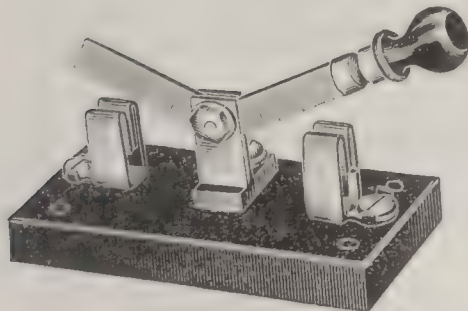


List No.	Price.
13001 Switch, complete with diagram.....	\$1 50

MAGNETO AND BATTERY SWITCH.

For Gas Engines.

The construction of this Switch is such that it is impossible to miss an ignition, thereby losing a stroke of the engine when throwing in the Magneto or fresh set of Batteries. The Metal Parts are all Copper, mounted on Black Enamel Slate Base. Size of Base, 2 x 4 inches.



List No.	Price
11918 Switch, complete, std. pkg. 50.....	\$0 60

BATTERY CONNECTOR.

This Battery Connector cannot possibly loosen from vibration, because the rubber, under pressure of the nut, holds the nut so securely that no amount of vibration can budge it.



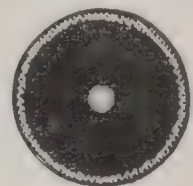
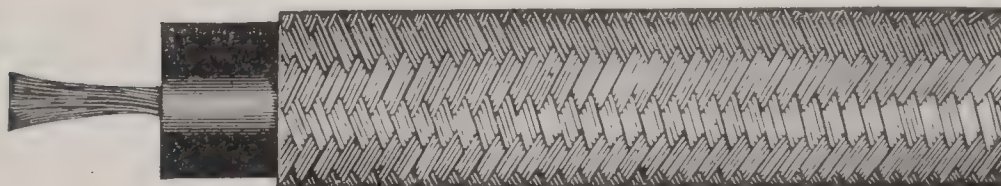
List No.	Price.
13002 Battery Connector.....	\$0 15

STAMPED COPPER TERMINALS.

These Terminals are used to connect Batteries, Coils, etc. on Automobiles, Launches and Stationary Work.



List No.	Price.
9068 Small size.....	Per 100, \$2 00
9069 Large ".....	" 2 50

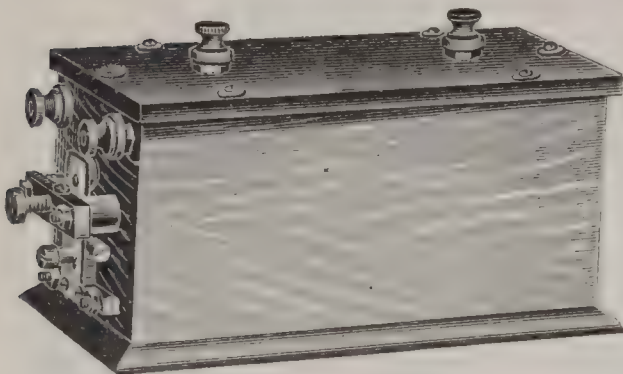


AUTOMOBILE CABLE.

This Cable is made of fine copper strands wound with pure tape and covered with semi-cured India rubber. The rubber is protected by three cotton braids, each enamelled and baked. The enamel protects the rubber from grease and oil; the braid gives protection from mechanical injury.

List No.	Price.
13003 $\frac{5}{8}$ over all, for Primary Wiring.....	per foot, \$0 05
13004 $\frac{1 \frac{1}{8}}{8}$ over all, for Secondary Wiring.....	" 15

IGNITION SUPPLIES.

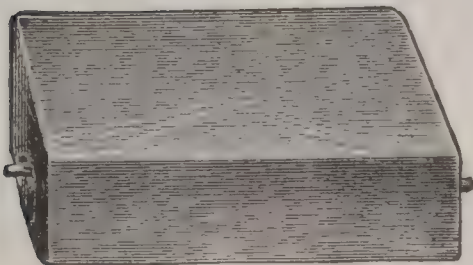


STANDARD VIBRATING COILS.

For Jump Spark.

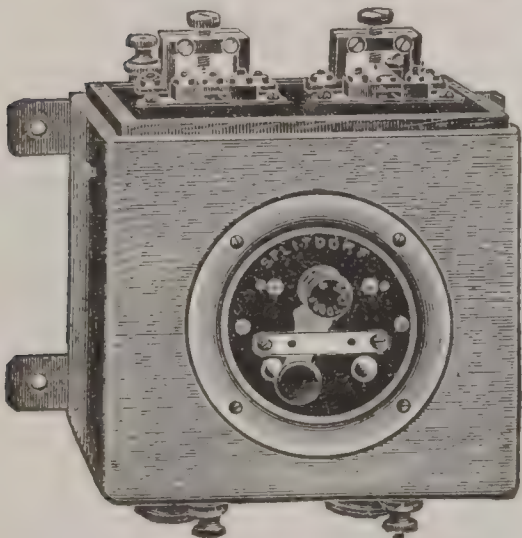
This is the style in most general use and gives good satisfaction under all conditions. Has improved Vibrator that will not stick. Easily adjusted and will stay there.

List No.		Price.
13005	For One-Cylinder Engine.....	\$10 00
13006	" Two- " "	20 00
13007	" Three- " "	30 00
13008	" Four- " "	40 00



DASH TYPE VIBRATING COILS.

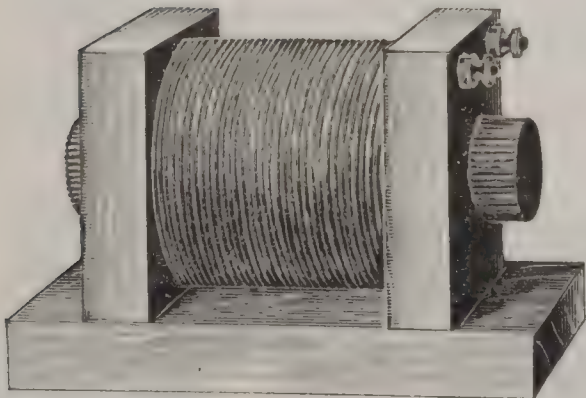
These Coils are furnished with or without cut-out switch as preferred.



List No.		Price.
13009	For One-Cylinder, with Switch.....	\$17 00
13010	" " no "	15 00
13011	" Two-Cylinder, with "	32 00
13012	" " no "	30 00
13013	" Three-Cylinder, with "	47 00
13014	" " no "	45 00
13015	" Four-Cylinder, with "	62 00
13016	" " no "	60 00

EDISON SPARK COILS.

The Edison Type Spark Coil is used for "wipe" or "make and break" contact gas engines. Can be used with either batteries or generator, a well made, strong and moisture-proof coil. Unexcelled for marine use.



List No.	Price.
3324 Edison Spark Coil.....	\$4 00

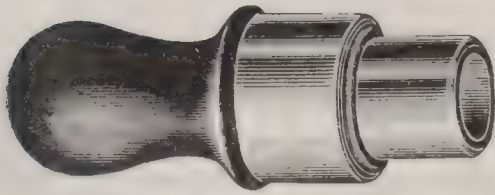
MOTORCYCLE COILS.

Made in two sizes.



List No.	Price.
13017 Long Coil, 10 x 2½.....	\$10 00
13018 Short " 6½ x 3.....	10 00

IGNITION SUPPLIES.

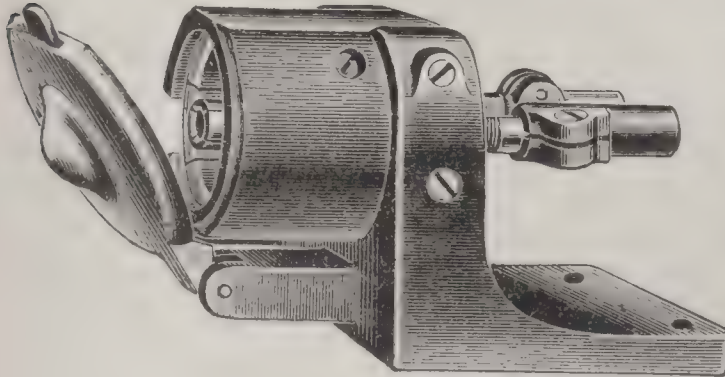


CHARGING PLUG AND RECEPTACLE FOR ELECTRIC AUTOMOBILES.

This is the latest type plug and receptacle on the market, and is strong and well made.

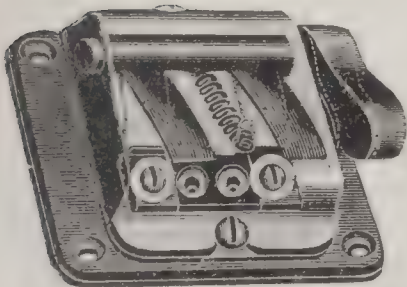
Handle and other insulation is made of composition.

Capacity, 35 amperes.



List No.	Price.
13020 Plug and Receptacle complete, without cable.....	\$7 50
13021 Plug only.....	3 50

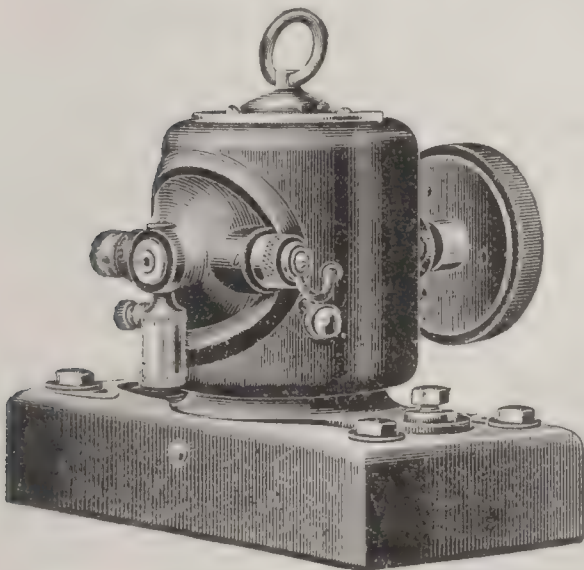
FOOT PUSH FOR AUTOMOBILES.



This Push is perfectly watertight and is used to make contact; for ringing bell with the foot, a heavy rubber gasket is furnished to insulate it from the vehicle. Made of cast brass and very durable. For use on 100 volts or less.

List No.	Price.
13022 Foot Push, complete.....	\$2 75

THE K. AND D. SPARKING DYNAMO.



The K. and D. Gas Engine Igniter is of sufficient capacity to operate large and multiple cylinder engines where a constant supply of energy is required, and is equally satisfactory with small engines. It meets these most exacting conditions and operates through a varying rate of speed from 1000 to 2500 revolutions per minute. This generator is self-contained, entirely enclosed and moisture proof, which admits of its use in damp or exposed places. All parts subject to wear are interchangeable and easily duplicated. Bearings are of hard drawn bronze; wick fed oil cups made extra large to hold a sufficient quantity of oil for a week's run; composite brushes of woven wire and carbon.

Weight, 15 pounds. Height, 7½ inches. Length of base, 9 inches. Length of shaft, 7½ inches.

Friction or grooved pulley, 2½ inches in diameter.

Speed 1000 to 2500. Capacity, 50 watts, 5 amperes, 10 volts.

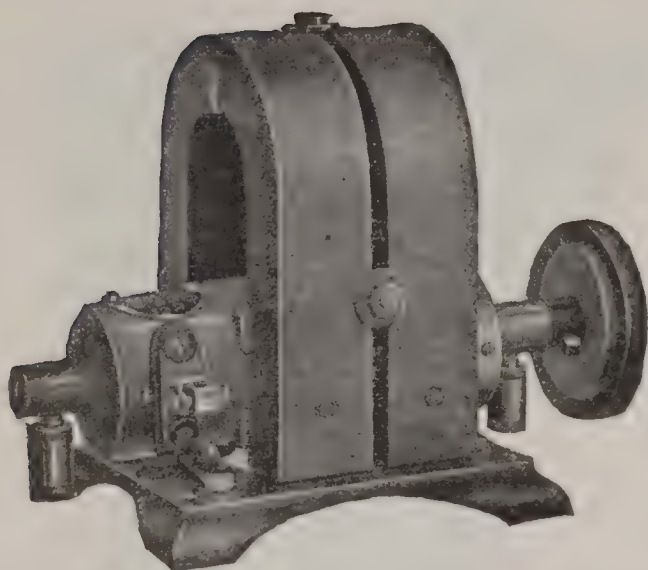
These generators can be furnished with 2½, 3, 3½ and 4-inch friction pulleys in place of grooved pulleys without extra charge.

They can also be furnished mounted on spring base for tightening belt or regulating the pressure of the friction pulley. Any desired tension may be obtained by adjusting either end of base.

List No.	Price.
3553 Dynamo with grooved pulley.....	\$18 00
3554 " " friction "	18 00
3512 " " " " and spring base.....	20 00

IGNITION SUPPLIES.

WIZARD TUBULAR MAGNETO.



This Magneto will run in either direction and can be attached to any Gas or Gasoline Engine. Will start any Engine with one turn of wheel if you have the proper mixture. The Magnets are permanent and will not decrease in power. A good spark can be had at very low speed, and for safety to Engine Contacts speed should not greatly exceed 1500 R. P. M. Has Hard Drawn Copper Commutator, Bronze Bearings and High Grade Steel Shaft, Wick Oilers.

Size, $4\frac{3}{4}$ x 7 x 10.inches, weight 10 pounds.

Contact spark only.

Furnished with Round Belt or Friction Pulley as preferred.

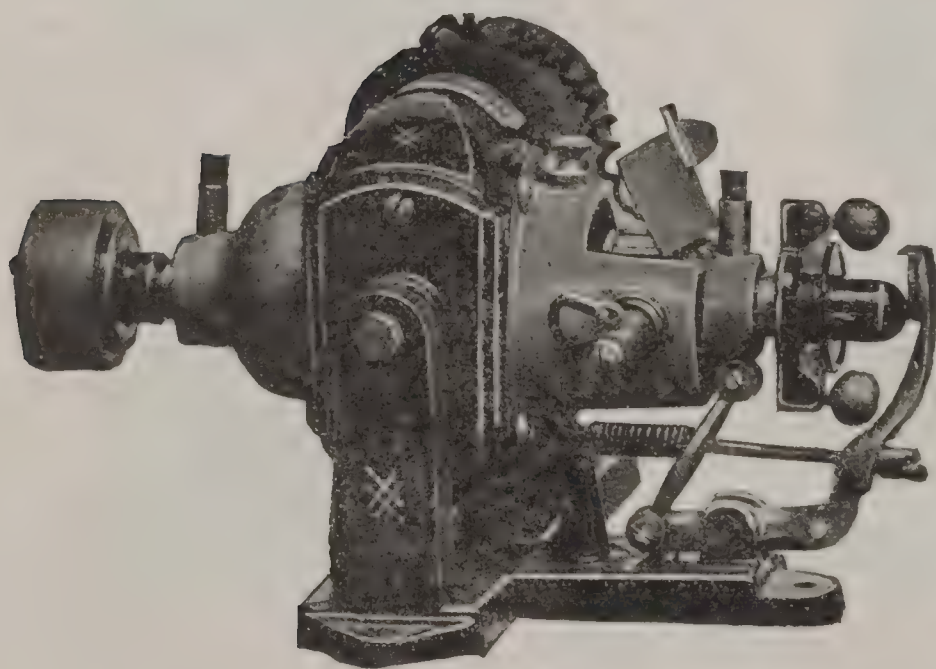
WITH PLAIN PULLEY.

List No.		Price.
3535	Wizard Magneto, with Round Belt Pulley.....	\$15 00
3536	" " " Friction Pulley.....	15 00
3537	" " Brushes.....Per pair	25

WITH GOVERNOR PULLEY.

List No.		Price.
13024	Wizard Magneto, with Friction Governor Pulley.....	\$17 00
13025	" " " Belt " "	17 00

THE AUTO SPARKER.



List No. 3538.

This is a well-known article and has many unique features.

A positive governor is one of the most important.

This machine will ignite on slow speed, and can be used on any style of Gas Engine made.

It is in all respects adapted to use on Automobiles, Boats, Traction Engines, etc., and can be placed in any position.

Size, $10\frac{1}{2}$ x 10 x $6\frac{1}{2}$ inches.
Weight, 23 lbs.

List No.		Price.
3538	Auto Sparker, complete	\$20 00

IGNITION SUPPLIES

APPLE DYNAMOS.



The Apple Igniting Dynamo is one of the best low voltage Dynamos on the market.

It is water and dirt proof, slow speed, and weighs but 17 pounds. While the Dynamo is entirely closed, access to working parts may be readily had by means of door on end. The Dynamo is wound to give a large current supply, and will furnish a good igniting current at a speed of 1,000 to 1,400 revolutions per minute.

This Dynamo can be driven by Flat or Round Belt, Friction Wheel, Gear or Chain.

Dimensions, 5½ x 10½ x 6 inches. The various Types and Combinations are listed below.

List No.		Price.
13028	Apple Dynamo, with plain 1½-inch Belt Pulley.....	\$15 00
13029	“ “ “ “ “ “ and mounted with	
	Touch Spark Coil in Base.....	17 00
13030	Apple Dynamo, with plain 1½-inch Belt Pulley, and mounted with	
	Jump Spark Coil in Base.....	22 50
13031	Apple Dynamo, with plain 1½-inch Friction Pulley, and mounted on	
	Spring Base.....	18 00
13032	Spring Base only.....	2 00
13033	Apple Dashboard Dynamo, fitted with 2-inch Belt Clutch, or Bevel	
	Friction Governor.....	22 00

PLAIN PULLEYS FOR THE APPLE DYNAMO ONLY.

LEATHER FRICTION
PULLEYS.

List No.		Price.
13035	2 inches in Diameter.....	\$1 25
13036	2½ “ “	1 50
13037	3 “ “	1 75
13038	3½ “ “	2 00
13039	4 “ “	2 25
13040	4½ “ “	2 50
13041	5 “ “	2 75
13042	5½ “ “	3 00
13043	6 “ “	3 25

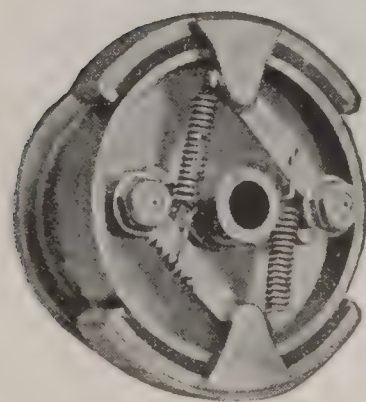
IRON BELT PULLEYS.

List No.		Price.
13044	1½ inches in Diameter.....	\$0 40
13045	2 “ “	53
13046	2½ “ “	65
13047	3 “ “	78
13048	3½ “ “	90
13049	4 “ “	1 03
13050	4½ “ “	1 15
13051	5 “ “	1 28
13052	5½ “ “	1 40
13053	6 “ “	1 53

IGNITION SUPPLIES.

PULLEYS FOR APPLE DYNAMOS.

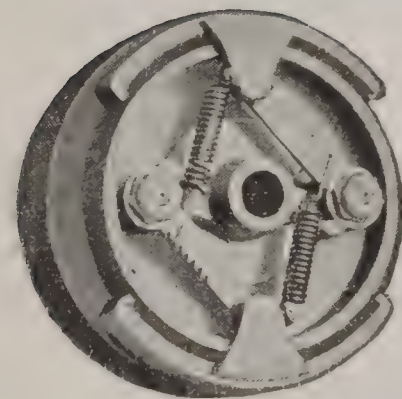
All Dynamos used on engines which vary in speed should have Governors to maintain their speed constant. Governors should also be used on Dynamos where it is desired to start the engine from the generator itself.



BELT CLUTCH GOVERNOR.

Will maintain speed of the Dynamo constant at 1400 revolutions per minute, no matter how fast the engine is running.

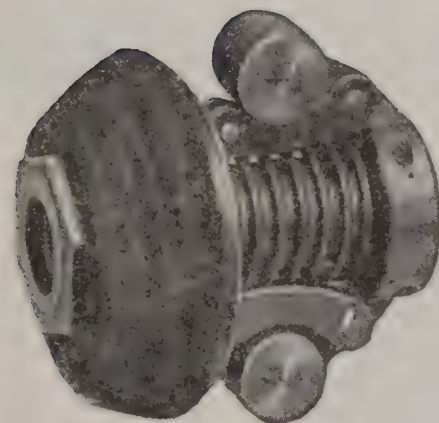
List No.					Price.
13055	Pulley 2	inches in diameter	.....		\$5 00
13056	"	2½	"	"	5 65
13057	"	3	"	"	5 78
13058	"	4	"	"	6 03
13059	"	5	"	"	6 28
13060	"	6	"	"	6 53



FRICTION CLUTCH GOVERNOR.

This is same construction as Belt Clutch Governor except that it has leather friction surface, easily renewed when worn out.
For use with dynamo fitted with spring base.

List No.					Price.
13061	Pulley 3	inches in diameter	.....		\$6 00
13062	"	3½	"	"	6 25
13063	"	4	"	"	6 50
13064	"	4½	"	"	6 75
13065	"	5	"	"	7 00
13066	"	5½	"	"	7 25
13067	"	6	"	"	7 50



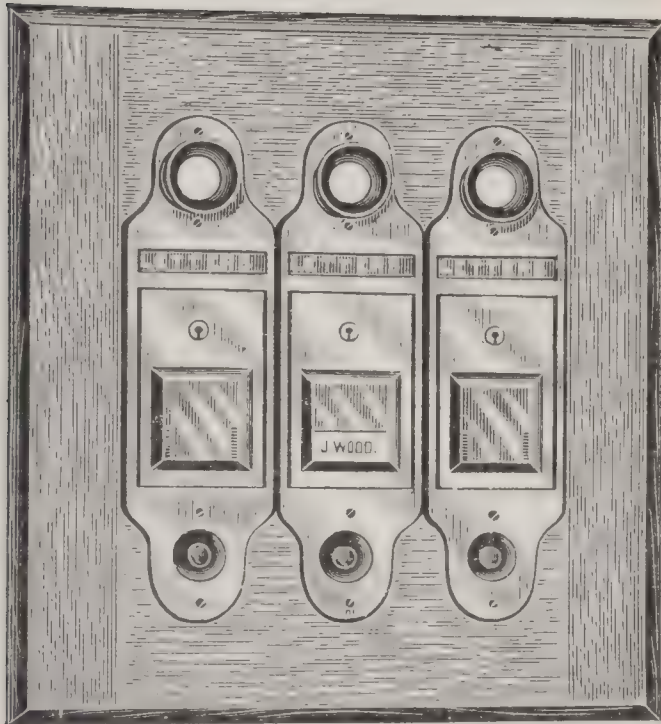
BEVEL FRICTION GOVERNOR.

In using the Bevel Friction Governor it is necessary to have either a bevel on the edge of the fly-wheel, with the dynamo at right angles to the wheel; or to set the dynamo at an angle to the face of the wheel. The Bevel Friction Governor operates as follows: The leather friction cone is brought into contact with rim of the fly-wheel by means of the spiral spring, causing it to rotate, and it in turn rotating the weights. The weights expand because of centrifugal force, and in so doing draw the friction cone away from rim of fly-wheel, preventing speed of dynamo from going higher than adjusted.

List No.					Price.
13068	2-inch Bevel Pulley	.....			\$5 00
13069	3	"	"	"	5 50
13070	4	"	"	"	6 00

VESTIBULE HOUSE LETTER BOXES.

FOR SINGLE APARTMENT HOUSES.



Cut shows three plates mounted in gang.

CAST BRONZE LETTER BOX.

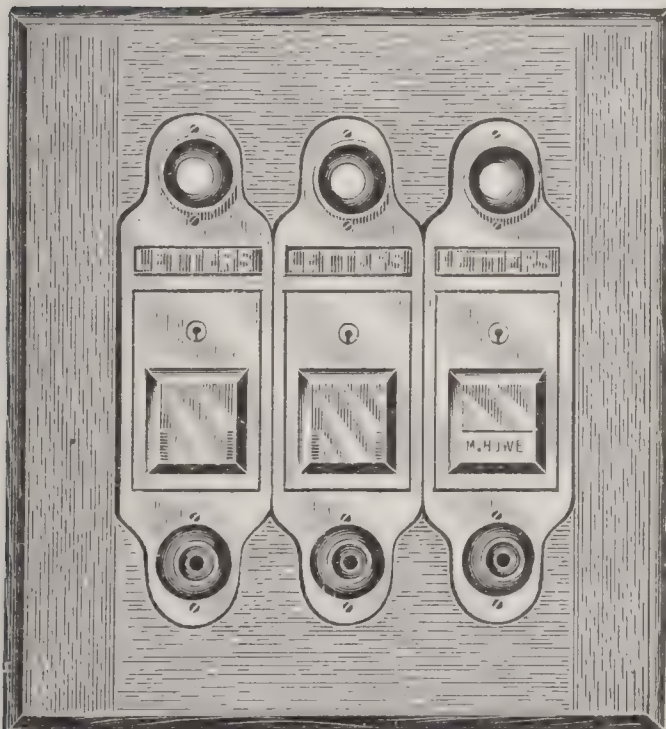
Depressed Push.

For Wood Frame.

Plate, size 4 x 13½ inches.

Letter opening, 3⅝ inches.

List No.	Price.
3025 Polished Bronze Finish, mounted, per plate	\$4 00
3026 Polished Bronze Finish, not mounted, per plate	3 00
3027 Oxidized Copper Finish, mounted, per plate	4 50
3028 Oxidized Copper Finish not mounted, per plate	3 50



Cut shows three plates mounted in gang.

CAST BRONZE LETTER BOX.

With Cast Screw Cap Push.

For Wood Frame.

Plate, size 4 x 13¼ inches.

Letter opening, 3⅝ inches.

List No.	Price.
3030 Polished Bronze Finish, mounted, per plate	\$4 50
3031 Polished Bronze Finish, not mounted, per plate	3 50
3032 Oxidized Copper Finish, mounted, per plate	5 00
3033 Oxidized Copper Finish, not mounted, per plate	4 00

Other Finishes same price as Oxidized Copper.

From one to ten Boxes on a Frame, Bevel or Square Edge.

When ordering, specify kind of wood wanted, also size of frame if any particular measurements are required. Beveled Edge Frames are supplied unless otherwise ordered.

VESTIBULE HOUSE LETTER BOXES.



Cut shows three sets mounted in gang.

CAST BRONZE LETTER BOXES.

For Double Apartment Houses.

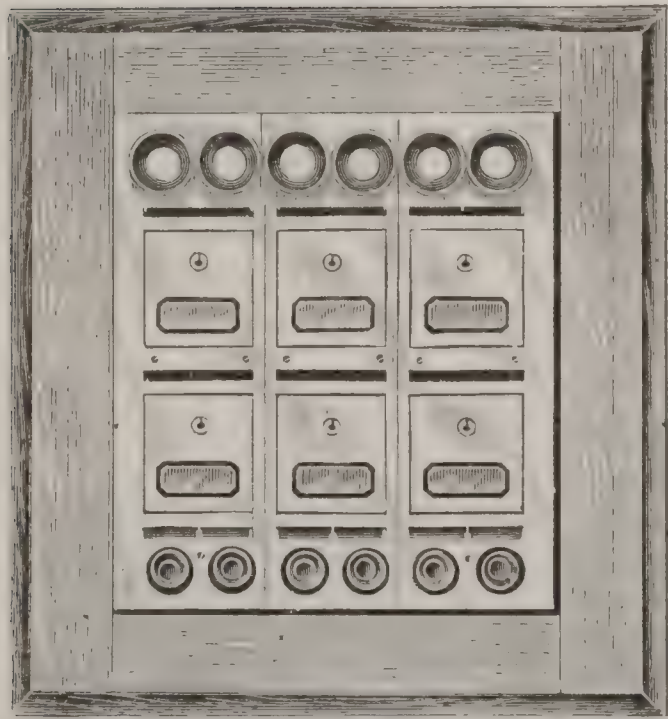
Plate, size 14¼ x 4 inches.

For wood frame, letter opening 3¾ inches.

List No.	Price.
3100 Plain Bronze, mounted, per set,	\$4 50
3101 " " not " "	3 50
3102 Oxidized Copper, mounted "	5 00
3103 " " not " "	4 00

A set consists of Two Letter Boxes and Two Pushes mounted on One Plate.

From two to ten sets can be mounted on one frame.



Cut shows three sets mounted in gang on wood frame.

CAST BRONZE LETTER BOXES.

For Double Apartment Houses.

Plate, size 14¾ x 4 inches.

For wood frame, letter opening 3⅞ inches.

List No.	Price.
3085 Plain Bronze, mounted, per set,	\$4 50
3086 " " not " "	4 00
3087 Oxidized Copper, mounted, "	5 00
3088 " " not " "	4 50

SAME STYLE.

For Tiled or Marble Vestibules.

Plate, size 14¾ x 4 inches.

End boxes, ½ inch wider.

Letter opening, 3⅞ inches

List No.	Price.
3080 Plain Bronze, mounted, per set,	\$4 50
3081 " " not " "	4 00
3082 Oxidized Copper, mounted, "	5 00
3083 " " not " "	4 50

A set consists of two Letter Boxes, two Pushes and two Mouthpieces on one Plate.

When ordering specify kind of wood wanted, also size of frame if any particular measurements are required.

Beveled Edge Frames are supplied unless otherwise ordered.

VESTIBULE HOUSE LETTER BOXES.

FOR DOUBLE APARTMENT HOUSES.



Cut shows three sets mounted in gang.

CAST BRONZE LETTER BOX.

With Flush Push.

For Wood Frame.

Plate, size 4 x 13 inches, containing two Letter Boxes and two Pushes.

Letter opening, $3\frac{1}{4}$ inches.

List No.	Price.
3090 Plain Bronze, mounted, per set ----	\$4 00
3091 " " not " " ----	3 00
3092 Oxidized Copper, " " ----	4 50
3093 " " not " " ----	3 50

Mouthpieces can be attached to the Wood Frame if desired.

A set consists of two Letter Boxes and two Pushes on one Plate.



Cut shows two sets mounted in gang.

CAST BRONZE LETTER BOX.

With Mouthpieces and Name Plate Push.

For Wood Frame.

Plate, size 4 x $12\frac{1}{2}$ inches.

Letter opening, $3\frac{1}{4}$ inches.

List No.	Price.
3055 Plain Bronze, mounted, per set ----	\$5 00
3056 " " not " " ----	4 00
3057 Oxidized Copper, " " ----	5 75
3058 " " not " " ----	4 75

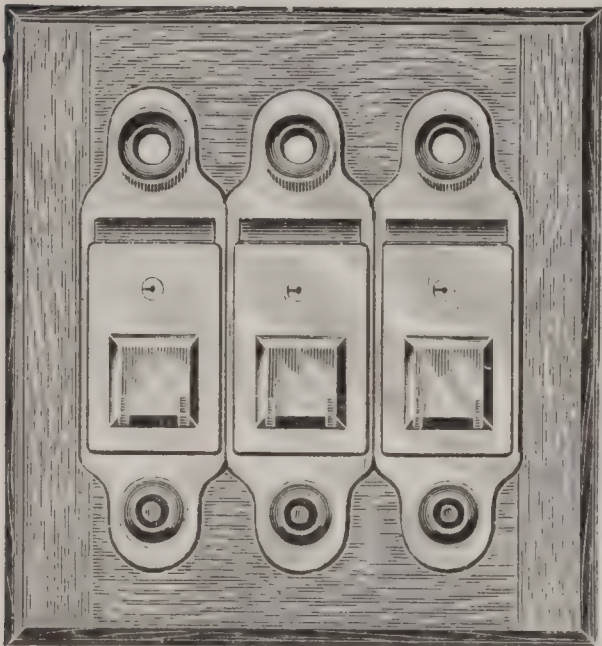
From one to ten sets of Boxes mounted on a Board, Bevel or Square Edge.

Two Letter Boxes, two Pushes and two Mouthpieces comprise one set.

When ordering, specify kind of wood wanted, also size of frame if any particular measurements are required. Beveled Edge Frames are supplied unless otherwise ordered.

VESTIBULE HOUSE LETTER BOXES.

FOR SINGLE APARTMENT HOUSES.



Cut shows three plates mounted in gang.

CAST BRONZE LETTER BOX.

With Mouthpiece and Cast Screw Cap Push.
For Wood Frame.
Plate, size 4 x 13 inches.
Letter opening. 3 $\frac{5}{8}$ inches.

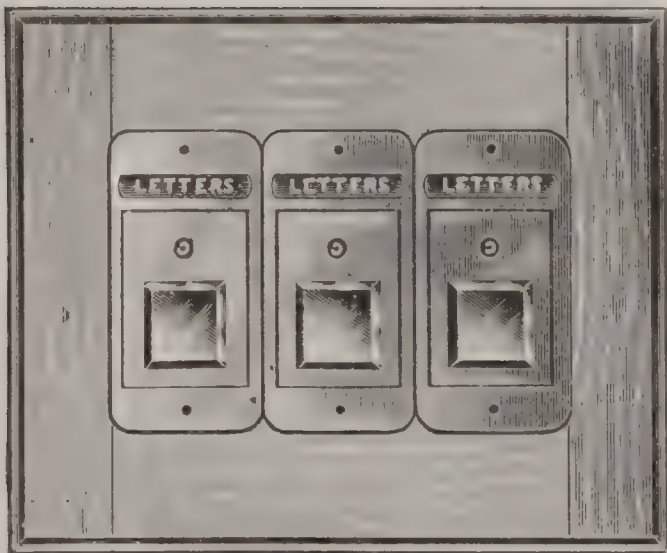
List No.		Price.
3035	Plain Bronze, mounted, per plate.....	\$3 75
3036	" " not " "	3 00
3037	Oxidized Copper, " "	4 25
3038	" " not " "	3 50

SAME STYLE WITH FOUR-INCH LETTER OPENING.

List No.		Price.
3040	Plain Bronze, mounted, per plate.....	\$4 75
3041	" " not " "	3 75
3042	Oxidized Copper, " "	5 50
3043	" " not " "	4 75

CAST BRONZE LETTER BOX,

Without Push or Mouthpiece.
Plate, size 4 x 8 $\frac{1}{2}$ inches. Letter opening, 3 $\frac{5}{8}$ inches.
For Wood Frame.



Cut shows three plates mounted in gang.

List No.		Price.
2095	Plain Bronze, mounted, per plate	\$4 00
3096	Plain Bronze, not mounted, per plate	3 00
3097	Oxidized Copper, mounted, per plate	4 50
3098	Oxidized Copper, not mounted, per plate	3 50

SAME STYLE WITH FOUR-INCH LETTER OPENING.

Plate, size 8 $\frac{3}{4}$ x 4 $\frac{1}{2}$ inches.

Push Buttons can be mounted on Frame if desired.

List No.		Price.
3125	Plain Bronze, mounted, per plate	\$4 00
3126	" " not " "	3 00
3127	Oxidized Copper, " "	4 50
3128	" " not " "	3 50

From one to ten Boxes on a Frame. Bevel or Square Edge.

Other Finishes same price as Oxidized.

When ordering, specify kind of wood wanted. also size of frame if any particular measurements are required. Beveled Edge Frames are supplied unless otherwise ordered.

VESTIBULE HOUSE LETTER BOXES.

FOR SINGLE APARTMENT HOUSES.



CAST BRONZE LETTER BOX.

Can be used separate, or mounted in Gang with Wood Frame.

Plate, size 13¼ x 4½ inches.

Letter opening, 4 inches wide.

Separate Tin Box attached to back.

This Letter Box has detachable socket for Push Button, easily removed for Wiring. Can be furnished without Mouth-piece, if desired.

List No.		Price.
3050	Plain Bronze, mounted, per plate.....	\$4 00
3051	" " not " "	3 00
3052	Oxidized Copper, " "	4 50
3053	" " not " "	3 50

Same style with 4½ inch letter opening.

Plate, size 13¼ x 5 inches

3065	Plain Bronze, mounted, per plate.....	4 00
3066	" " not " "	3 00
3067	Oxidized Copper, " "	4 50
3068	" " not " "	3 50

CAST BRONZE LETTER BOX.

Can be used separate or mounted in Gangs with Wood Frame.

Plate, size 10 x 6 inches.

Letter opening, 4½ inches.

Separate Tin Box attached to back.

This is an extra wide Box, and is used for fine Apartment and Club House work.

List No.		Price.
3045	Plain Bronze, mounted, per plate.....	\$5 00
3046	" " not " "	4 00
3047	Oxidized Copper, " "	5 50
3048	" " not " "	4 50



When ordering, specify kind of wood wanted, also size of frame if any particular measurement is required. Beveled Edge Frames are supplied unless otherwise ordered.

VESTIBULE HOUSE LETTER BOXES.

FOR SINGLE APARTMENT HOUSES.



Cut shows three plates mounted in gang.

CAST BRONZE LETTER BOX.

For Tiled or Marble Vestibule.

This Box is absolutely fire-proof, as the Frame and Boxes for holding letters are all metal. Size of Plate, 4 x 14¹/₄ inches; End Plates ¹/₂ inch wider. Letter opening, 3³/₈ inches.

List No.	Price.
3060 Plain Bronze, mounted, per plate,	\$4 00
3061 " " not " "	3 00
3062 Oxidized Copper, mounted, per plate	4 50
3063 Oxidized Copper, not mounted, per plate	3 50

From two to ten Boxes mounted on one Frame, with separate Tin Boxes on back.

CAST BRONZE LETTER BOX.

For Tiled or Marble Vestibules.

Size of Plate, 9 x 4⁷/₈ inches; End Plate ¹/₂ inch wider. Letter opening, 4 inches. Frame and Boxes are all metal. Separate Tin Boxes on back. From two to ten Boxes mounted on Frame.

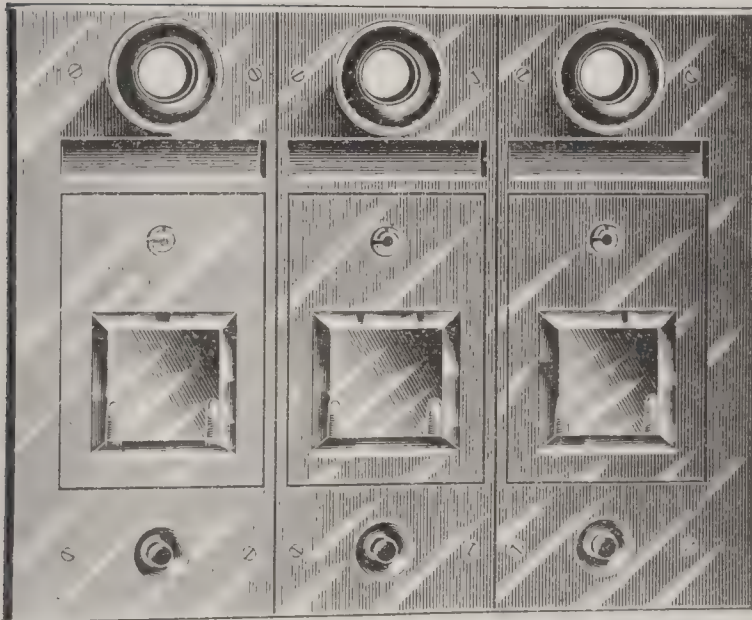


Cut shows three plates mounted in gang.

List No.	Price.
3105 Plain Bronze, mounted, per plate	\$5 00
3106 " " not " "	4 00
3107 Oxidized Copper, " "	5 50
3108 " " not " "	4 50

VESTIBULE HOUSE LETTER BOXES.

FOR SINGLE APARTMENT HOUSES.



Cut shows three plates mounted in gang.

CAST BRONZE LETTER BOX.

With Push and Mouthpiece.
For Tiled or Marble Vestibules.

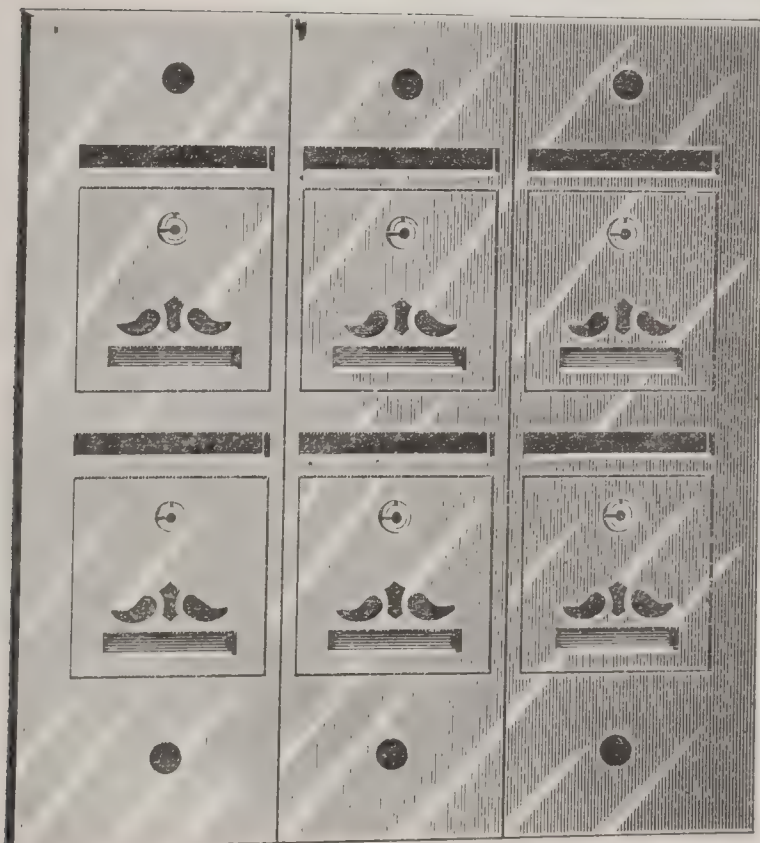
Plate, size 4 x 10¼ inches.

End Box ½ inch wider.

Letter opening, 3⅝ inches.

List No.	Price.
3070 Plain Bronze, mounted, per plate	\$3 00
3071 Plain Bronze, not mounted, per plate	2 50
3072 Oxidized Copper, mounted, per plate.....	3 50
3073 Oxidized Copper,not mounted, per plate	3 00

FOR DOUBLE APARTMENT HOUSES.



Cut shows three sets mounted in gang.

CAST BRONZE LETTER BOX.

With Push only.

For Tiled and Marble Vestibules.

Plate, size 4 x 14¼ inches.

End Boxes ½ inch wider.

A set consists of Two Letter Boxes and two Pushes on one Plate.

Letter opening, 3⅝ inches.

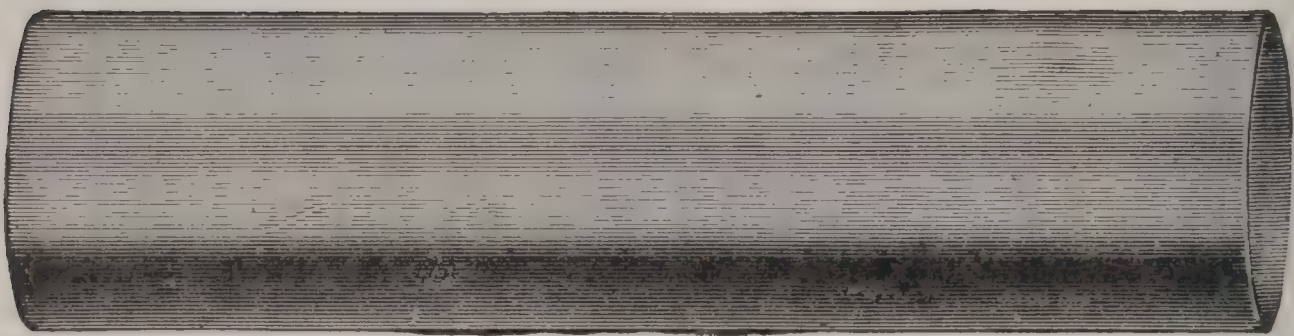
List No.	Price.
3075 Plain Bronze, mounted, per plate	\$4 00
3076 Plain Bronze, not mounted, per plate.....	3 50
3077 Oxidized Copper, mounted, per plate.....	4 50
3078 Oxidized Copper,not mounted, per plate	4 00

From two to ten Boxes mounted in gang.

Other Finishes same price as Oxidized.

SPEAKING TUBE SUPPLIES.

Tin Tube in Five Foot Lengths.



SOLDERED SEAMS AND JOINTS.

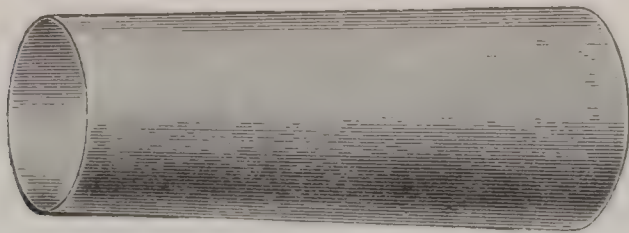
List No.		Price.
3165	1 inch diameter, per 1000 feet (extra for crating).....	\$24.00
3166	1 1/4 " " " "	34.00
3167	1 1/2 " " " "	40.00
3168	2 " " " "	60.00

LOCK SEAM TUBE.

3160	1 inch diameter, per 1000 feet (extra for crating).	24.00
------	--	-------

A charge of \$1.00 per 1000 is made for crating tubing for shipment.

HANDY CONNECTORS.



List No. 3169.

These Connectors are very convenient for extending tube a few inches beyond the length of a five foot piece, obviating the necessity for cutting same. They are made large and small end, about four inches long.

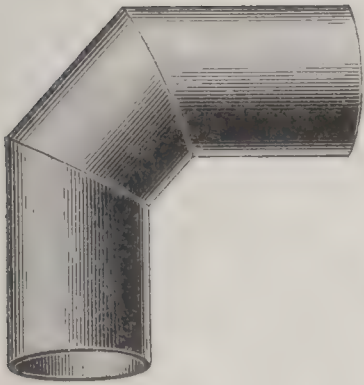
Sizes larger than 1 inch made to order.

List No.		Price.
3169	1 inch diameter, per 100.....	\$1.20

LABOR SAVING, ALWAYS FITS AND VERY CHEAP.

We manufacture all our speaking tubes and accessories, and are prepared to fill orders for quantities at low prices.

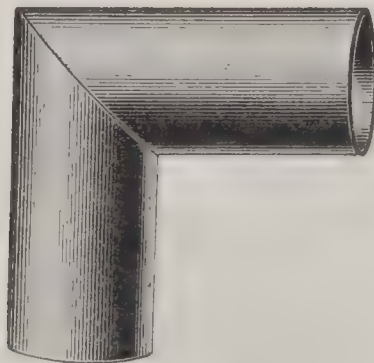
SPEAKING TUBE SUPPLIES.



List No. 3171.

Hexagonal Elbows.

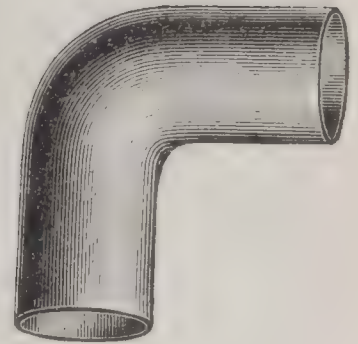
List No.		Price.
3171	1-inch, per 100.....	\$3.00
3172	1¼ " " 100.....	5.00
3173	1½ " " 100.....	7.00
3174	2 " " 100.....	15.00



List No. 3170.

Square Elbows.

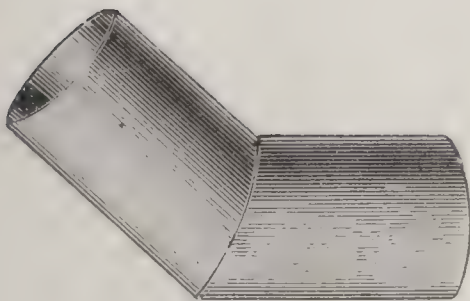
List No.		Price.
3170	1-inch, per 100.....	\$2.10



List No. 3175.

Stamped Elbows.

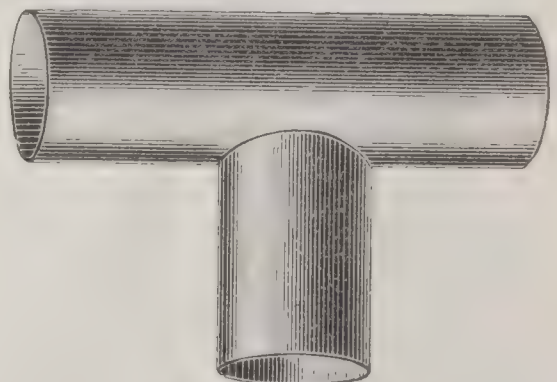
List No.		Price.
3175	1-inch, per 100.....	\$4.00
3176	1¼ " " 100.....	8.00
3177	1½ " " 100.....	13.00
3178	2 " " 100.....	20.00



List No. 3180.

Obtuse Elbows.

List No.		Price.
3180	1-inch, per 100.....	\$2.50
3181	1¼ " " 100.....	5.00
3182	1½ " " 100.....	7.00
3183	2 " " 100.....	15.00



List No. 3184.

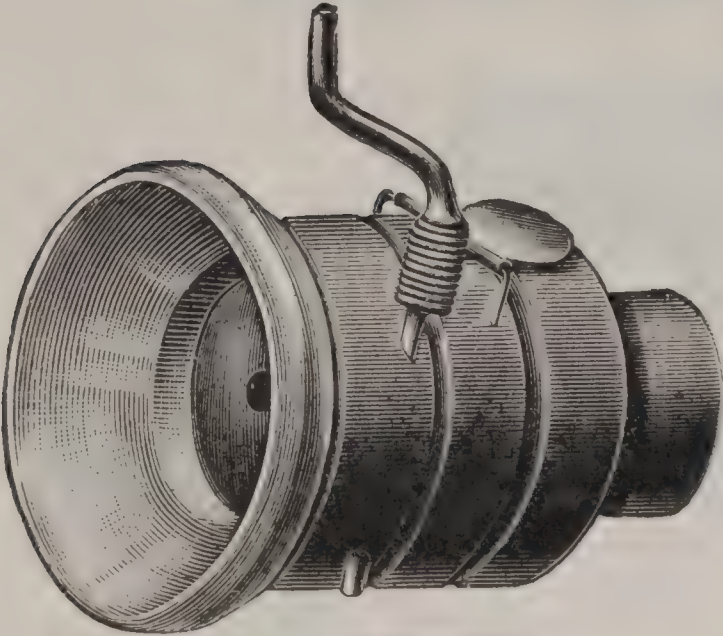
Tee Joints.

List No.		Price.
3184	1-inch, per 100.....	\$6.50
3185	1¼ " " 100.....	9.00
3186	1½ " " 100.....	12.00
3187	2 " " 100.....	20.00

All of our Tubes and Elbows have soldered seams and joints.

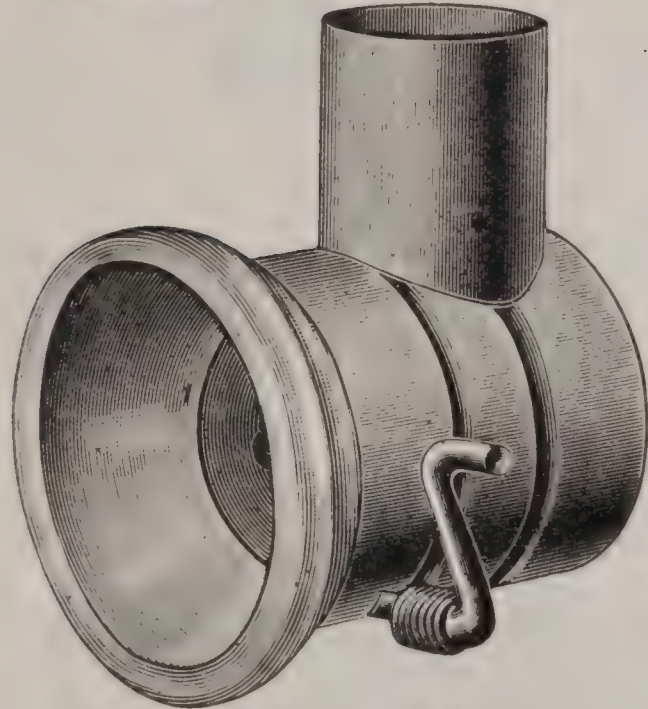
Always order by Number.

SPEAKING TUBE WHISTLES.



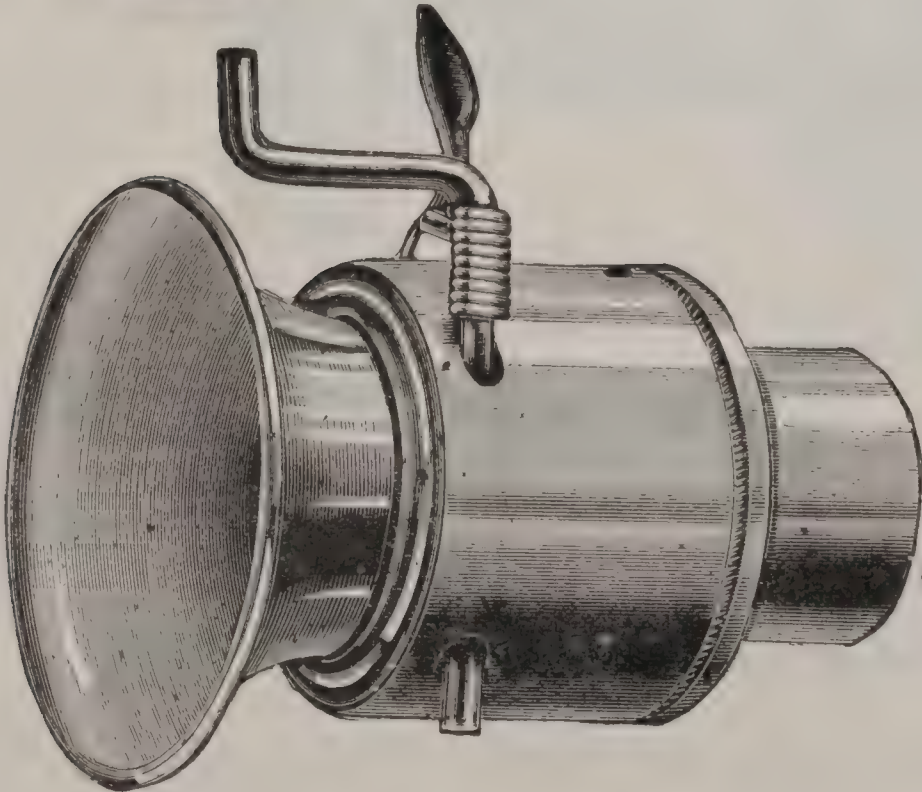
PORCELAIN WHISTLES.

List No.		Price per doz.
3110	For 1 inch Tube ..	\$2.00
3111	" 1 1/4 " "	2.50
3112	" 1 1/2 " "	4.00



PORCELAIN ELBOW WHISTLES.

List No.		Price per doz.
3113	For 1 inch Tube.....	\$3.00
3114	" 1 1/4 " "	4.00
3115	" 1 1/2 " "	5.00



SPUN METAL WHISTLES.

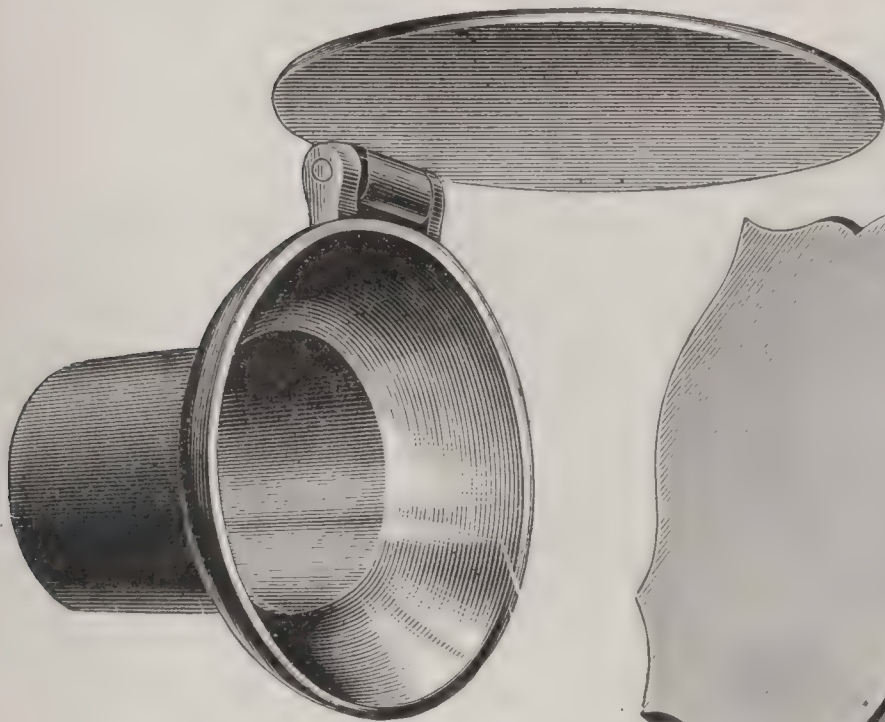
Bronze or Nickel.

List No.		Price per doz.
3116	For 1 inch Tube.....	\$3.00
3117	For 1 1/4 inch Tube.....	4.00

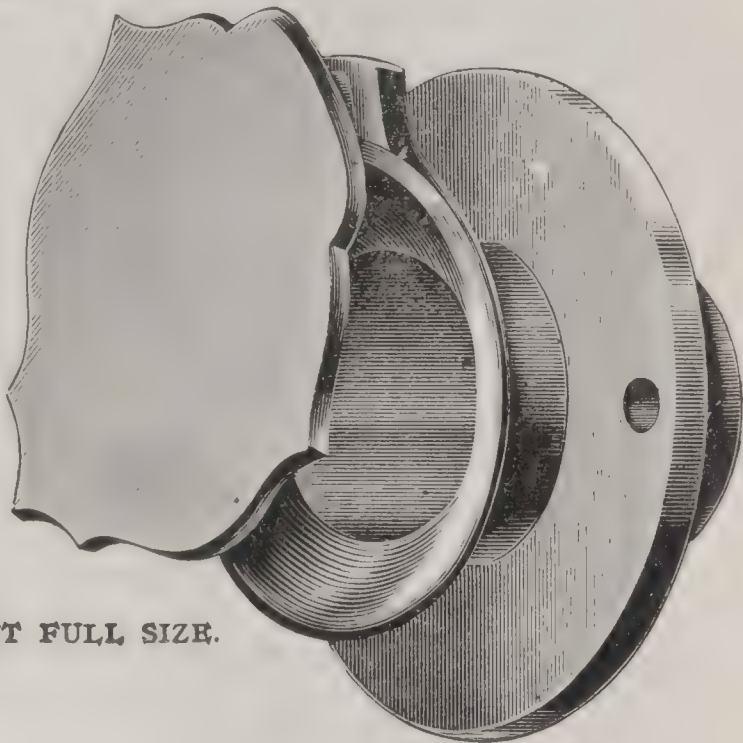
Above prices are with or without indicators.

No extra charge for blanks instead of whistles.

CAST BRONZE MOUTH-PIECES.



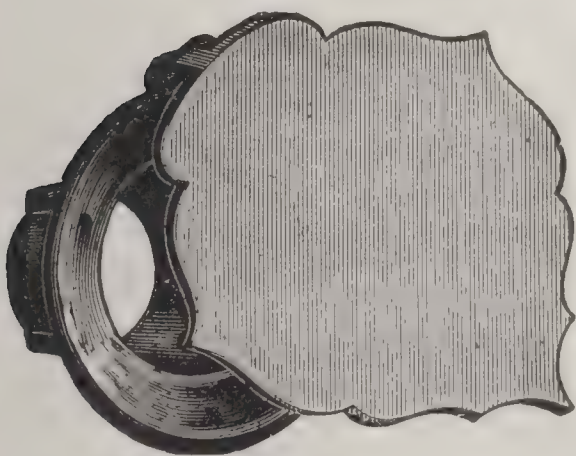
CUT $\frac{7}{8}$ SIZE.
List No. 3120.



CUT FULL SIZE.

List No. 3122.

List No.		Price each.	List No.		Price each.
3120	Bronze, for 1-in. tube.....	\$0.65	3122	Bronze, for 1-in. tube.....	\$0.80



CUT $\frac{3}{4}$ SIZE.
List No. 3121.



CUT $\frac{3}{4}$ SIZE.
List No. 3123.

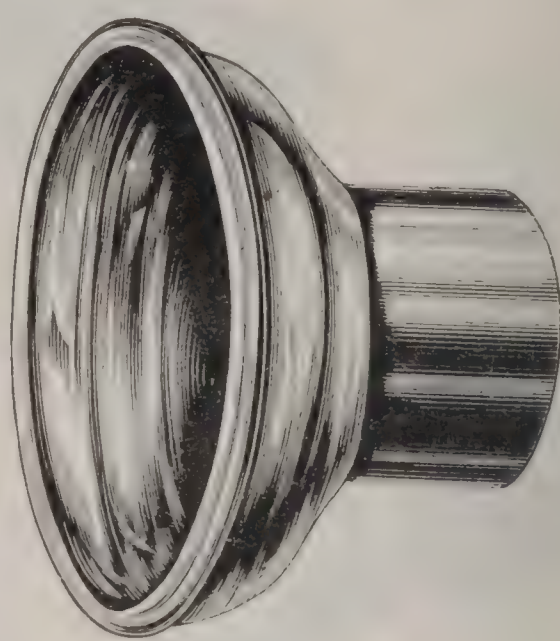
List No.		Price each.	List No.		Price each.
3121	Solid Bronze, for 1-in. tube,	\$0.50	3123	Solid Bronze, for 1-in. tube,	\$0.50

The above Mouth-pieces finished in any style given on page 67, 10 cents, net, each, in addition to above price.

SPEAKING TUBE SUPPLIES.

Round Porcelain.

Spun, Nickel or Bronze Mouth-piece.



List No. 3130.

List No. 3135.

Round Porcelain Mouth-pieces.

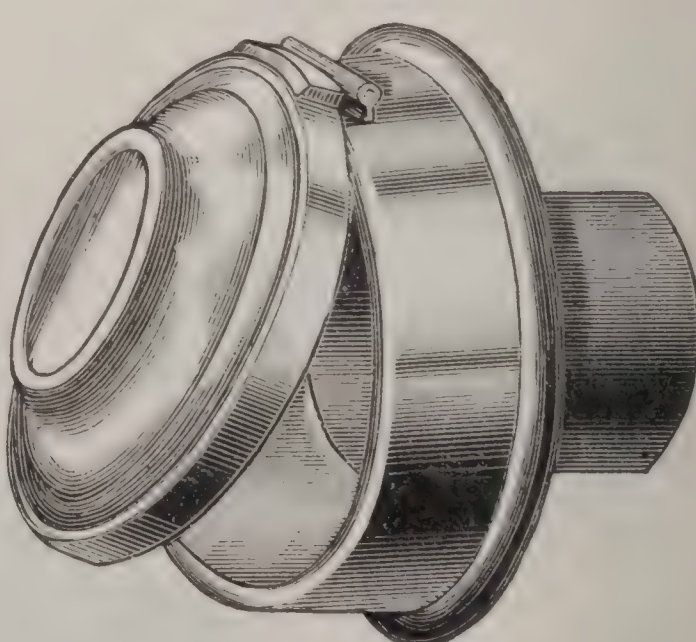
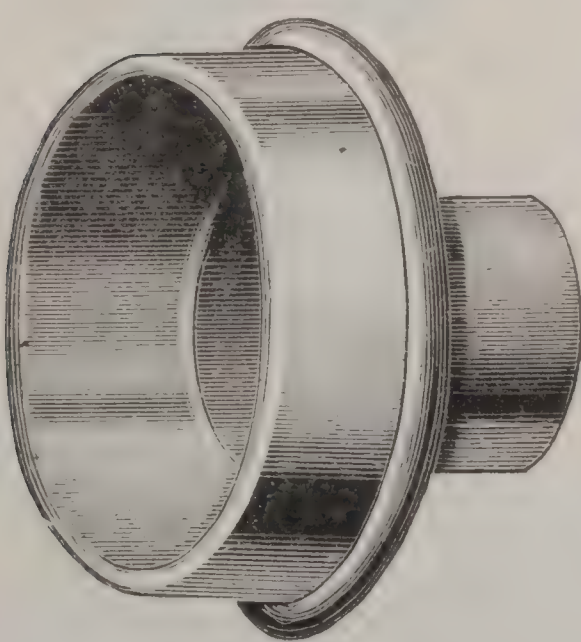
List No.	Price.
3130 For 1 inch tube, each...	\$0.08

List No.		Price.
3135	1 inch, each.....	\$0.10
3136	1 1/4 " " .....	.15
3137	1 1/2 " " .....	.20

SPUN BRONZE OR NICKEL MOUTH-PIECES.

Box Pattern, Open.

Box Pattern, with Cover.



List No. 3131.

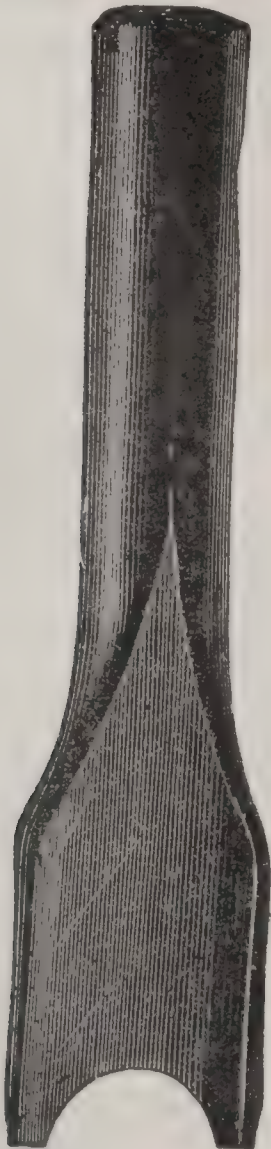
List No. 3140.

List No.	Price.
3131 For 1 inch tube, each,	\$0.10
3132 " 1 1/4 " " "	.18
3133 " 1 1/2 " " "	.25

List No.	Price.
3140 For 1 inch tube, each,	\$0.20
3141 " 1 1/4 " " "	.30
3142 " 1 1/2 " " "	.40

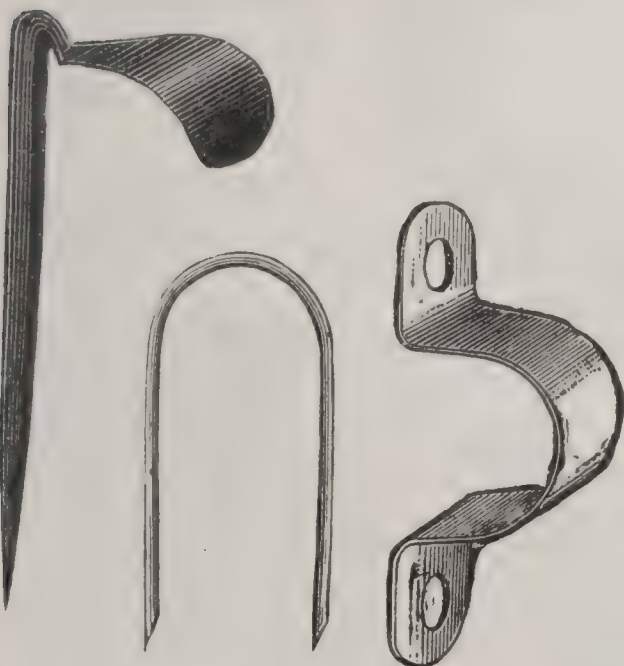
SPEAKING TUBE SUPPLIES.

Staple Drivers.



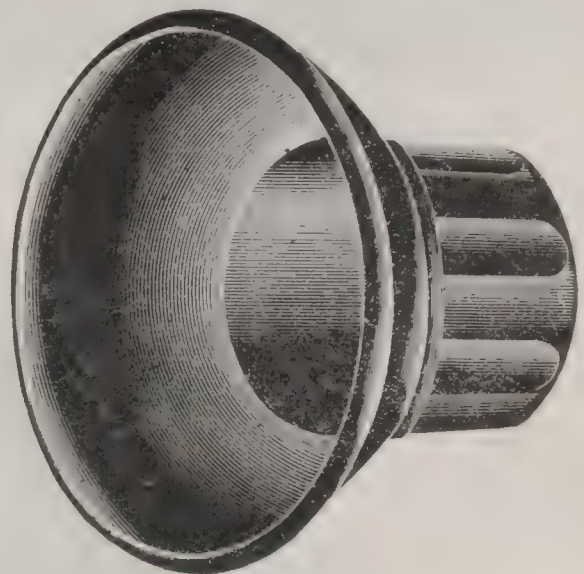
List No.	SIZE 1 OR 1¼-INCH.	Price.
3145	Each.....	\$0 40

Hooks, Staples and Straps.



List No. 3146.	List No. 3147.	List No. 3148.
List No.		Price.
3146	Iron Hooks.....per doz.,	\$0 15
3147	Speaking Tube Staples.....per lb.,	20
3148	Tinned Straps.....	35

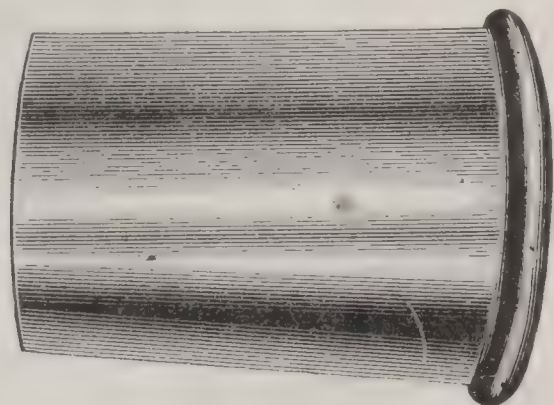
Black Enameled Iron Mouth-piece.



List No. 3150.

List No.	Price.
3150 For 1-inch Tube.....each,	\$0 08

Nickel-plated or Bronze Collars.

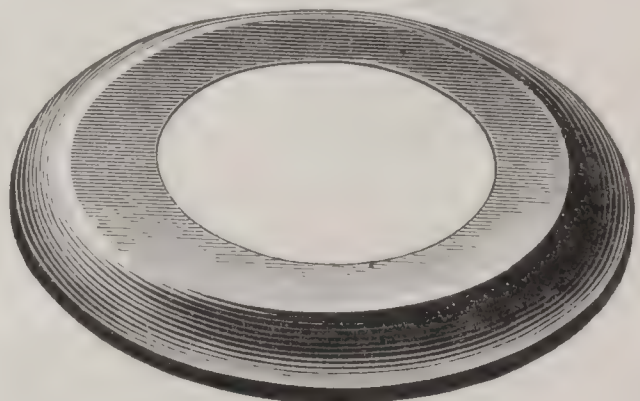


List No. 3151.

For Flexible Speaking Tube.

List No.	Price.
3151 Each.....	\$0 20

Flange or Rosette.



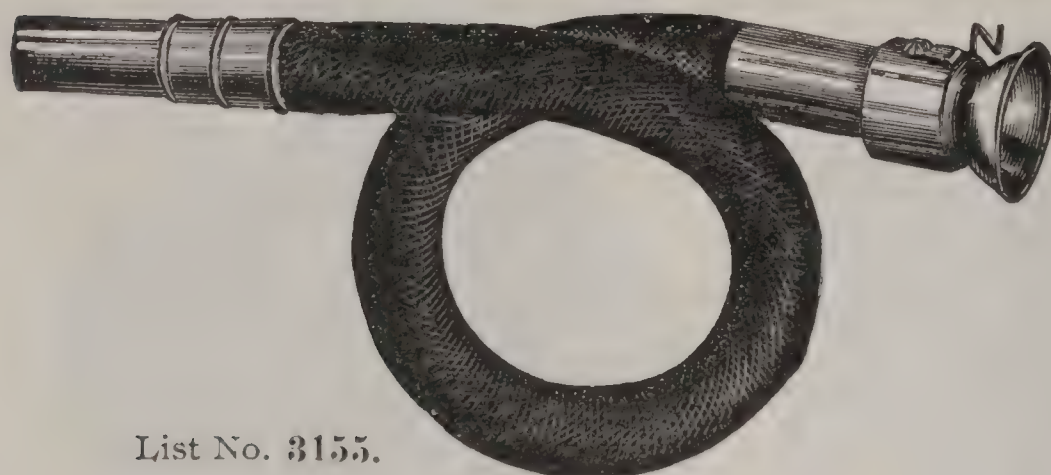
List No. 3152.

Nickel or Bronze.

For Mouth-pieces and Whistles.

List No.	Price.
3152 1 inch.....each,	\$0 06
3153 1¼ "	09
3154 1½ "	12

FLEXIBLE SPEAKING TUBE TERMINALS.



List No. 3155.

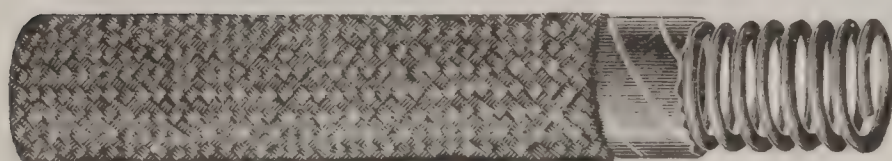
Terminals

fitted up with whistle and connector as shown.

List No.	Price.
3155 2 ft...	\$1.60
3156 3 ft...	1.90

For each additional foot 30 cents extra.

FLEXIBLE SPEAKING TUBE.

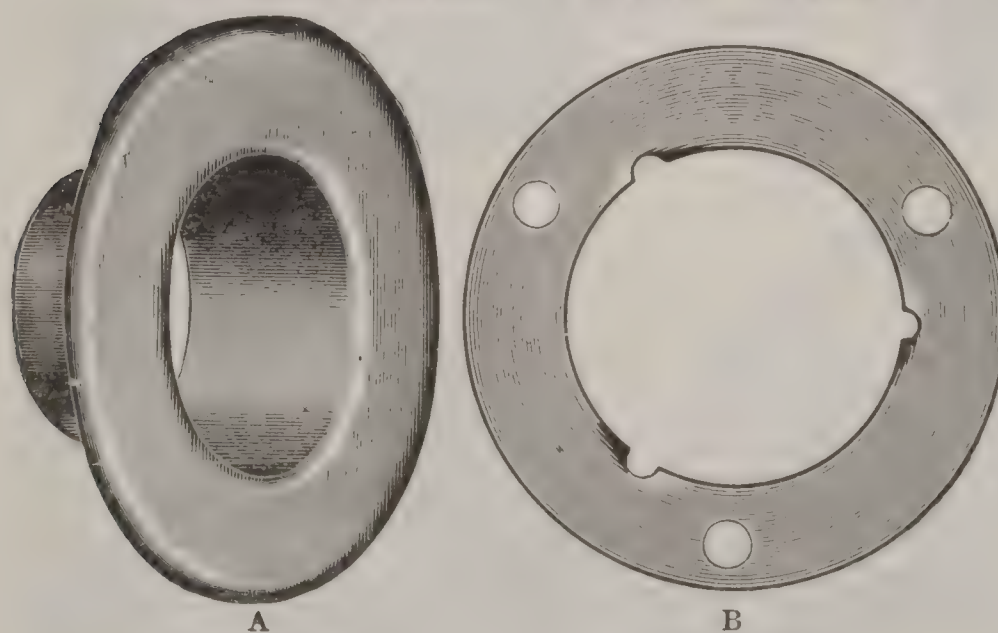


List No. 3157.

One inch diameter covered with black and green braid.

List No.	Price.
3157 Any length.....	per foot, \$0.30

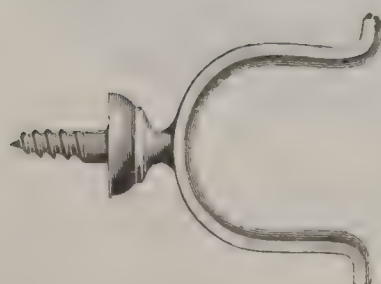
FLEXIBLE TUBE RECEPTACLE.



A has projections which fit into notch in B. When it is placed into B a slight turn secures it firmly in place.

List No.	Price per set.
3158 Nickel-plated.	\$0.20

TUBE RACK.



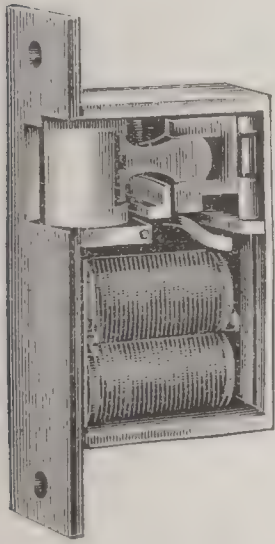
List No. 3159.

To hold the mouth-piece of Flexible Tube Terminals, when not in actual use.

List No.	Price.
3159 Nickel-plated.....	each, \$0.28

ELECTRIC DOOR OPENERS.

The Manhattan Door Openers are so constructed that positive action is assured when current is applied. The Lock Releasing Device is operated by the Armature and is so easily controlled that two Cells of Open Circuit Battery will release it on short lines, and not over four Cells are required for the longest circuits with heavy doors. Cast Bronze Frame and Face Plate.



MANHATTAN MORTISE DOOR OPENER.

This Door Opener is used in place of Latch Striking Plate and is to be mortised in door frame.

A Push Out Spring is furnished with the regular type to hold door ajar until opened.

Size of mortise required, $3\frac{3}{4} \times 2\frac{1}{2} \times 1\frac{3}{8}$ inches.

List No.	Price.
3190 Mortise Door Opener with Push Out Spring.....	\$4 00

WITH LARGE FACE PLATE.

Size, $2 \times 7\frac{5}{8}$ inches.

3164 Mortise Door Opener	4 75
--------------------------------	------

WITH SPECIAL MAGNETS.

The Special Magnets are so arranged that when current is applied the Latch becomes disengaged and stays so until the door is opened.

Push Out Spring is not furnished or required.

List No.	Price.
3188 Mortise Door Opener.....	\$4 50



MANHATTAN JUNIOR MORTISE DOOR OPENER.

This is a small edition of our No. 3190 and is intended for use on doors where a large mortise is impossible.

This is one of the smallest Door Openers on the market, size of mortise $3\frac{1}{2} \times 1 \times 2\frac{1}{4}$ inches.

List No.	Price.
3161 Junior Mortise Door Opener with Push Out Spring.....	\$4 00

WITH LARGE FACE PLATE

3162 Junior Mortise Door Opener with Push Out Spring.....	4 75
---	------

WITH SPECIAL MAGNETS.

3163 Junior Mortise Door Opener, no Push Out Spring	4 50
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MANHATTAN RIM DOOR OPENER.

For use with Surface or Rim Locks on thin doors, iron gates, etc.

Cast Bronze, polished, size, $3\frac{1}{4} \times 5 \times 1\frac{3}{8}$ inches.

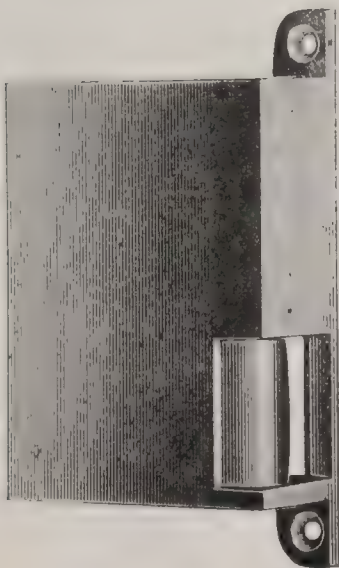
List No.	Price.
3193 Rim Door Opener with Push Out Spring.....	\$5 00

WITH SPECIAL MAGNETS.

3189 Rim Door Opener, no Push Out Spring	5 50
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EDWARDS' DOOR OPENERS.

3191 Edwards' Mortise Door Opener	4 00
Edwards' Rim Door Opener.....	4 50



SCHNEIDER DOOR OPENERS.

3192 Schneider Mortise Door Opener.....	4 00
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ELECTRIC GAS LIGHTING SUPPLIES.

**"ADVANCE" AUTOMATIC BURNER FOR GAS.**

List No.	Price.
3220 Advance Automatic.....	\$6 00

"BOSTON" AUTOMATIC BURNER FOR GAS.

List No.	Price.
3223 Boston Automatic.....	\$6 00

**"ADVANCE" GASOLINE AUTOMATIC BURNER.**

This shows the Burner with Tirrell Top.

List No.	Price.
3230 Gasoline Automatic	\$8 00

IMPROVED "ADVANCE" ACETYLENE BURNER.

The Burner operates as follows: The Armature which controls the Sparking Mechanism, operates in conjunction a Tube, one end of which is brought opposite the Burner Orifice, conducting the gas to the Sparking device, igniting it and lighting main Burner by contagion.

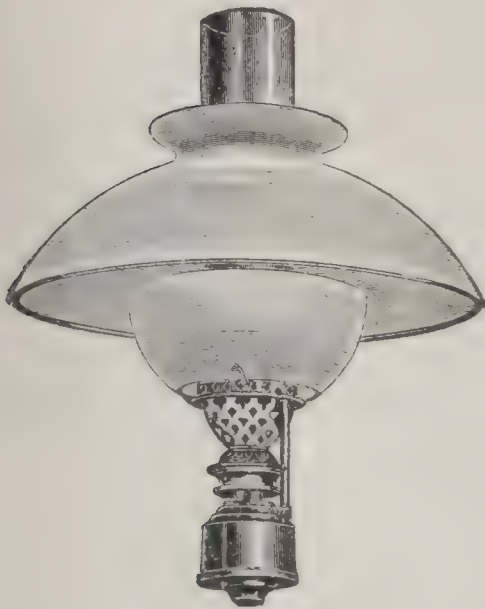
The Tube then drops back by gravity and remains in its normal position at a sufficient distance away not to affect the flame.

List No.	Price.
3226 Automatic Acetylene Burner with Tip	\$8 50



Damp proof office or weather proof wire should be used for Electric Gas Lighting.

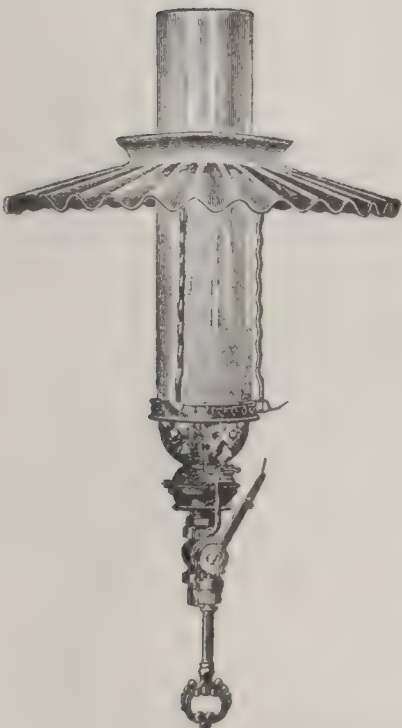
ELECTRIC GAS LIGHTING SUPPLIES.



"ADVANCE" AUTOMATIC WELSBACH ATTACHMENTS.

This Attachment can be used with Nos. 33 and 34 Welsbach Burners and many of the imitations.

List No.	Price.
3231 Automatic with Welsbach Attachment only---	\$8 00

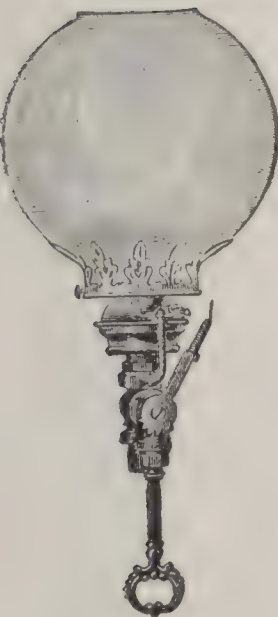


STYLE "A" ADVANCE WELSBACH ATTACHMENT.

This Style Attachment is used in connection with the No. 34 Welsbach Burner and similar makes.

Stems are furnished in the same lengths as the regular Advance Stem Burner.

List No.	Price.
3215 Attachment for Genuine Welsbach	\$2 00
3216 Attachment for Other Makes.....	2 00



STYLE "C" ADVANCE WELSBACH ATTACHMENT.

These Attachments ignite the gas very gently, thus saving breakage of Mantles caused by the use of pull chains or explosion occurring through lighting with a match.

This style Attachment is used in connection with the No. 33 Welsbach or other makes of similar design.

List No.	Price.
3213 Attachment for Genuine Welsbach	\$2 00
3214 Attachment for Other Makes	2 00

ELECTRIC GAS LIGHTING SUPPLIES.

RATCHET CANDLE BURNER.

The mechanism of this Candle Burner is very simple and not liable to get out of order.

Plain White Candle Slips are furnished with the Burner unless specially ordered.

Without Pull Chain.

List No.	Price.
3241 Ratchet Candle Burner, Polished Brass with Porcelain Slips.....	\$3 00

THE "ADVANCE" CANDLE BURNER.

The mechanism of this Burner is simple and positive, and contains no delicate parts which are liable to get out of order and give trouble.

List No.	Price.
3242 Advance Candle Burner, Polished Brass.....	\$3 50

THE "ADVANCE" ARGAND BURNER.

This Burner overcomes the tendency of all previous makes to short circuit on the Electrodes when the gas is being extinguished.

List No.	Price.
3243 Advance Argand Burner, 4-inch stem.....	\$4 00

THE "ADVANCE" EXPOSED AUTOMATIC CANDLE BURNER.

This is a regular Automatic Burner, to which is fitted a Candle stem and slip.

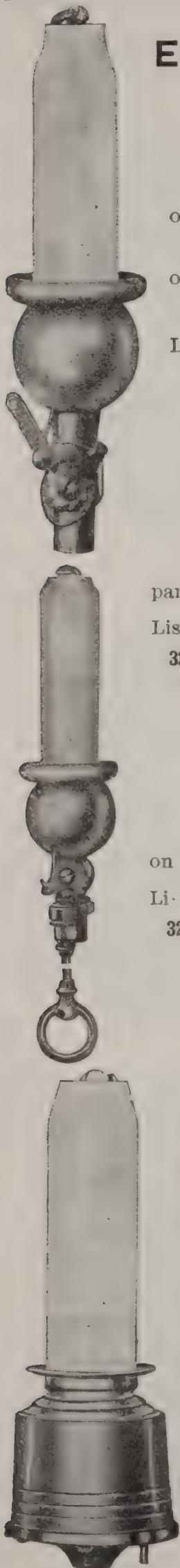
List No.	Price.
3244 Advance Exposed Automatic Candle Burner.....	\$8 50

INSULATING BUSHING.

Used to attach Pendant and Automatic Burners to Combination Gas and Electric Light Fixtures

This Bushing meets the requirements of the Insurance Exchange.

List No.	Price.
3218 Insulating Bushing	\$0 20



ELECTRIC GAS LIGHTING SUPPLIES.



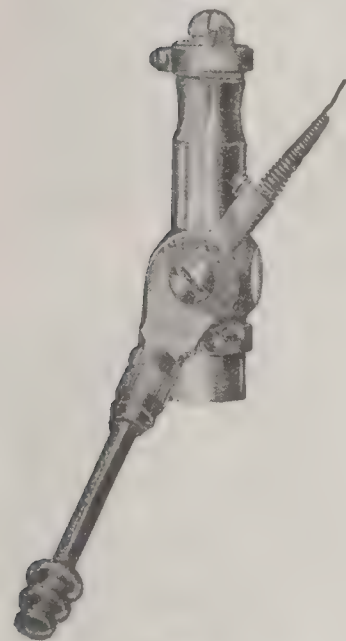
THE "ADVANCE" STEM BURNER.

In lighting this Burner the Electrodes make contact and create the spark, which ignites the gas, but in turning down or extinguishing, the movable passes the fixed one located on the collar without touching.

It is impossible to short circuit the Burner after it has been lighted.

List No.	Price.
3206 Advance Burner with Stem 4 inches long	\$1 70
3251 Advance Burner with Stem 4 inches long and Special Insulating Bushing	1 80
3252 Advance Stems only	20

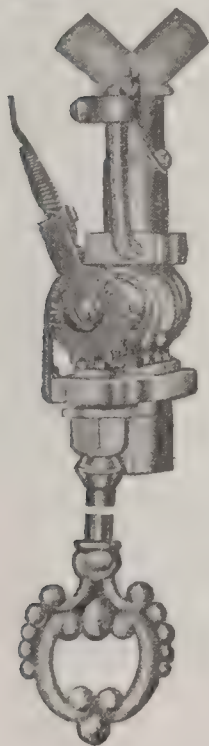
Stems, 2, 3, 6, 8 or 10 inches long to order.



THE "ADVANCE" SIDE-LEVER BURNER.

This style Burner is operated by a stem which is fastened to the end of the movable Electrode Arm, a movement from left to right ignites the gas.

List No.	Price.
3207 Advance Lever Burner	\$1 60
3253 Advance Lever Burner with Special Insulating Bushing ..	1 70



THE "ADVANCE" STEM-STYLE ACETYLENE BURNER.

The operation of this Burner is as follows: on turning the Key the gas is admitted to both the Pilot Tube and Burner, the movable Electrode passing the fixed Electrode on the Pilot Tube, makes Spark and lights the gas issuing from same, which in turn lights the main Burner.

On turning the Burner down, Pilot Light Tube may be left ignited for a night light if so desired.

List No.	Price.
3261 Acetylene Burner for 3¼ Shade Holder	\$2 50
3262 Acetylene Burner for 2¼ Shade Holder	2 50

4-inch Stems furnished with the above. 2, 3, 6, 8 or 10-inch Stems to order.

ELECTRIC GAS LIGHTING SUPPLIES.

PLAIN PILLAR BURNER.

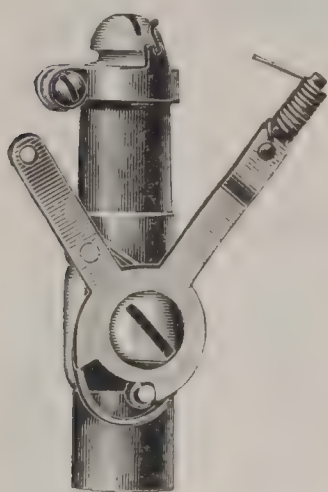
The Plain Pillar Burner is the simplest form of Electric Gas Lighting Burner made. These Burners are favored by many contractors as they are less liable to get out of order than the more complicated styles.

Price does not include chains.

List No.

Price.

3196 Plain Pillar Burner \$0 50



PLAIN BULB BURNER.

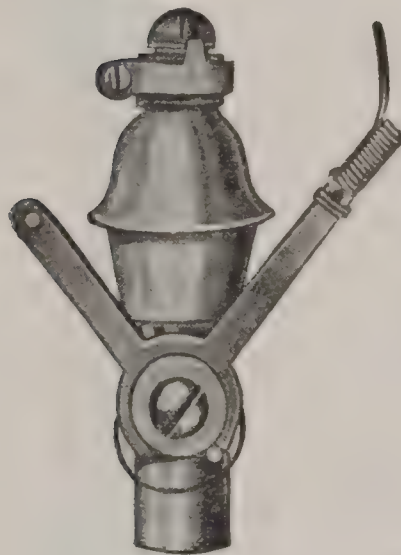
This Burner contains no Valve but is lighted by the Electric Spark after the Gas has been turned on by the regular Gas Key.

A strong and well made Burner.

List No.

Price.

3197 Plain Bulb Burner \$0 50



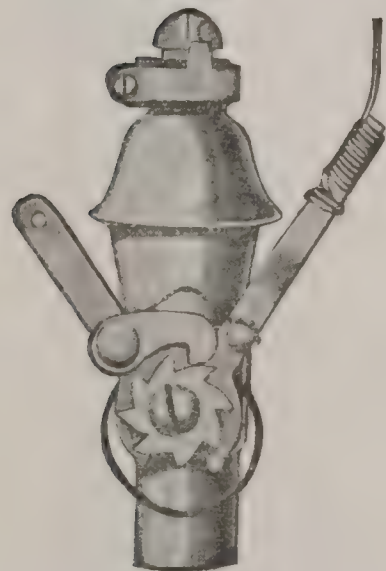
BOSTON RATCHET BURNER.

This Burner is made with a Four-way Gas Cock operated by a Ratchet Wheel and Pawl; the first pull of the Chain turning on and lighting the gas, and the next turning off and extinguishing same.

List No.

Price.

3195 Ratchet Burner without Chain \$1 10



THE IMPROVED No. 10 BURNER.

This Burner is an improvement over the old No. 10 Burner. The mechanism is more simple, and the movable Electrode has the desirable advantage of not passing through the flame, either in lighting or extinguishing.

The Burner operates as follows: Pulling down the stiff-pull causes the pivoted Lever Arm to push up the Pin, elongating the coiled Spring, which as the Gas Cock is turned, makes contact with the fixed Electrode and ignites the gas.

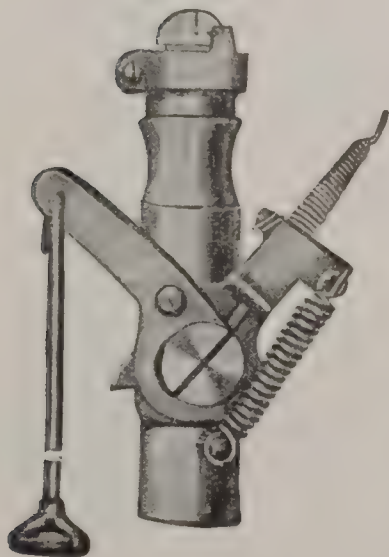
It is impossible to short circuit the Improved Burner, as in extinguishing the Electrodes do not come in contact.

This Burner has been on the market for three years, and is without question, the most Perfect Stiff-pull Burner manufactured.

List No.

Price.

3205 Burner with 6-inch Pull \$0 90



AUTOMATIC GAS BURNERS KEYS.



List No. 3235.

WOOD BASE GAS KEYS.

Walnut, Ash and Oak.

Rubbing inside contact points, pearl buttons and nickel trimmings.

List No.		Price.
3235	2-Button Key for 1 Automatic, 2x3 inch, each.....	\$0.50
3236	4-Button Key for 2 Automatic, 3x3¼ inch, each .....	.80
3237	6-Button Key for 3 Automatic, 3x4½ inch, each.....	1.10
3238	8-Button Key for 4 Automatic, 3x5¾ inch, each.....	1.50
3239	10-Button Key for 5 Automatic, 3x7 inch, each.....	2.00
3240	12-Button Key for 6 Automatic, 3x8¼ inch, each.....	2.50



List No. 3245.

METAL PLATE GAS KEYS.

Nickel-Plated or Bronze Plate.

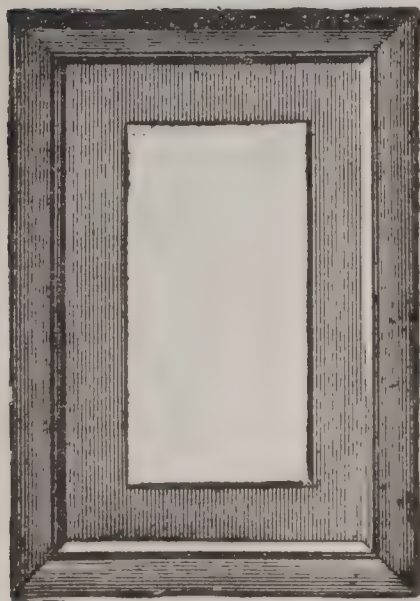
Pearl Buttons.

Rubbing inside contact points.

List No.		Price each.
3245	2-Button Key for 1 Automatic,	\$0.50
3246	4 " " 2 "	.80
3247	6 " " 3 "	1.10
3248	8 " " 4 "	1.50
3249	10 " " 5 "	1.80
3250	12 " " 6 "	2.10

Larger sizes made to order.
Prices on application.

WOOD BASES FOR METAL KEYS.



List No. 3255.

List No.				Price.
3255	For	2 Button Key	.....each,	\$0.20
3256	"	4	" .....	.25
3257	"	6	" .....	.30
3258	"	8	" .....	.35
3259	"	10	" .....	.40
3260	"	12	" .....	.45

Kept in stock in Oak, Cherry, Mahogany and Walnut Wood.

ELECTRIC GAS LIGHTING MATERIAL.

Acorn.—Solid Brass.

Bead Chain.



List No. 3265.

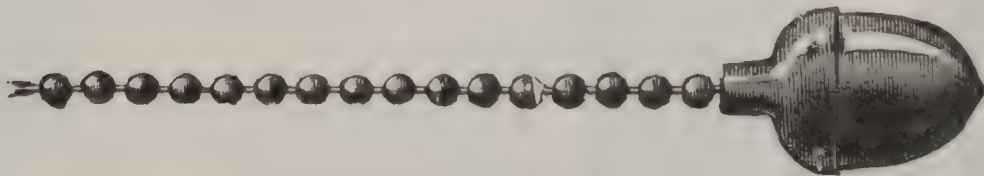
List No.			Price per yard.
3265	Bead Chain, gilt	.....	\$0.18
3266	" " nickel-plated	..	.25
3267	" " silver	" ..	.30
3268	" " gold	" ..	.40



List No. 3269.

List No.		Price.
3269	Acorns, gilt...per doz.,	\$0.36
3271	Acorns, Cup and Pins, per dozen sets.....	.40

COMPLETE CHAINS.



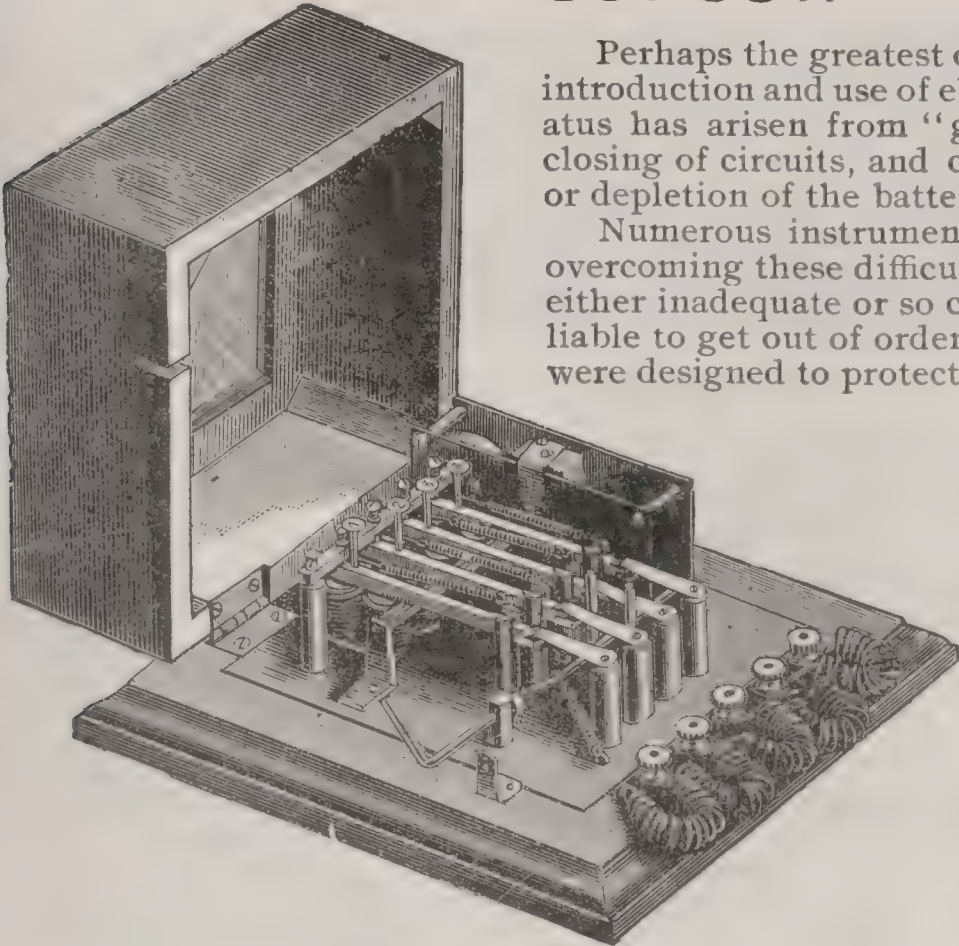
List No.		List No. 3272.	Price.
3272	Gilt,	4 inches long.....	each, \$0.08
3273	"	6 " .....	.09
3274	"	8 " .....	.10
3275	"	10 " .....	.12
3276	Nickel-plated,	4 inches long.....	.12
3277	"	6 " .....	.14
3278	"	8 " .....	.16
3279	"	10 " .....	.18

Stiff Rod Pulls at same prices as above.

Gold-plated and silver-plated chains made to order.

Always order by Number.

THE BOSTON AUTOMATIC SECTIONAL CUT-OUT.



Perhaps the greatest obstacle to a more general introduction and use of electric gas-lighting apparatus has arisen from "grounding" or accidental closing of circuits, and consequent running down or depletion of the battery.

Numerous instruments have been devised for overcoming these difficulties, but they have been either inadequate or so complicated as to be more liable to get out of order than the apparatus they were designed to protect.

The Automatic Sectional Cut-out, illustrated herewith, has solved the problem satisfactorily. The instrument is arranged to leave all circuits in the several sections of the house not in fault, fully operative, and to indicate at a glance which circuit is out of order.

List No. 3288.

List No.		Price.
3285	1 Section, complete.....	\$6.00
3286	2 " " " "	10.00
3287	3 " " " " "	12.00
3288	4 " " " " " "	15.00

List No.		Price.
3289	6 Section, complete...	\$20.00
3290	8 " " " " "	26.00
3291	10 " " " " " "	32.00

BATTERY CUT-OUT.

This is a reliable Battery Cut-out, low enough in price to be a paying investment for owners of even small battery plants. It has the following advantages:

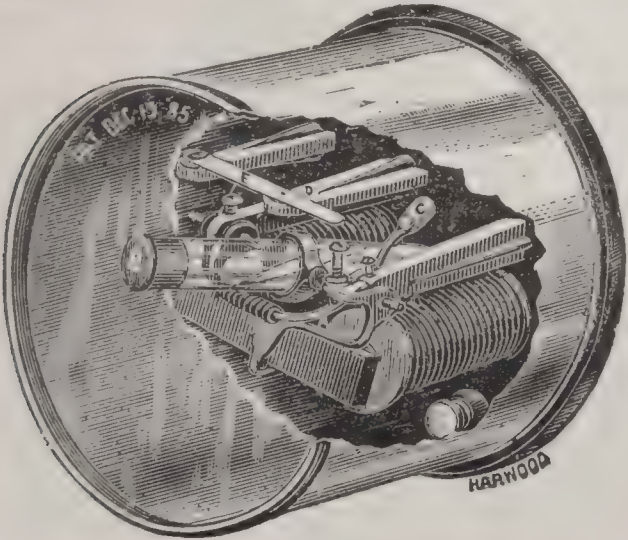
Owners of gas-lighting batteries will often save its cost at only **one** cross, as they can easily find and remove a caught burner or chain and restore it themselves without calling in an expert, to say nothing of saving renewals to their batteries; and a battery is never so good as before, if it has been short-circuited awhile, even after renewal by an expert.

Its use is not limited to gas-lighting batteries.

It will always disconnect and save the battery if the wires become crossed.

The Cut-out has been thoroughly tested and is giving complete satisfaction.

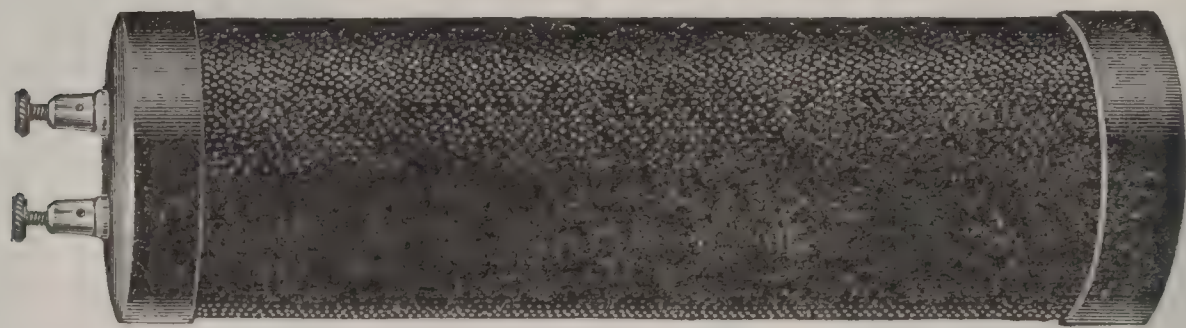
The cover is a metal front. *It can be easily removed by a slight twisting motion.*



List No. 3295.

List No.	Price.
3295	Cut-out, complete.....\$6.00

GAS LIGHTING SPARK COIL.

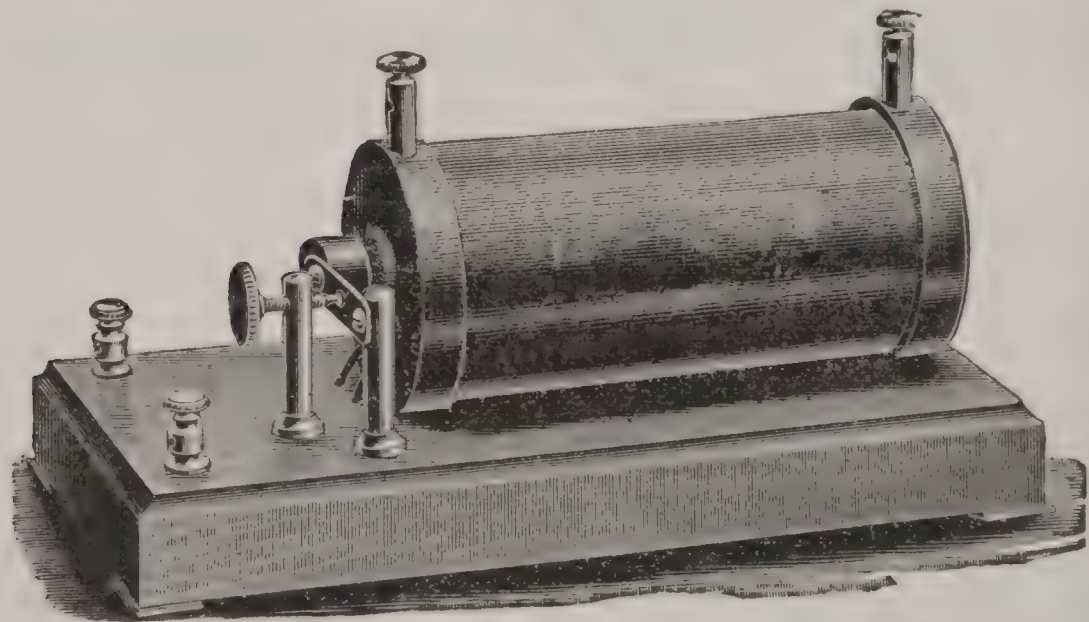


List No. 3300.

List No.	Price	List No.	Price.	List No.	Price.
3300 8-inch.....	\$2 75	3301 10-inch.....	\$3 90	3302 12-inch.....	\$4 50

Wound 6 convolutions. No. 14 pure copper wire. Covered with imitation morocco; polished binding posts. Ebonized heads filled so that the core wires are not exposed. A first-class Spark Coil in every respect.

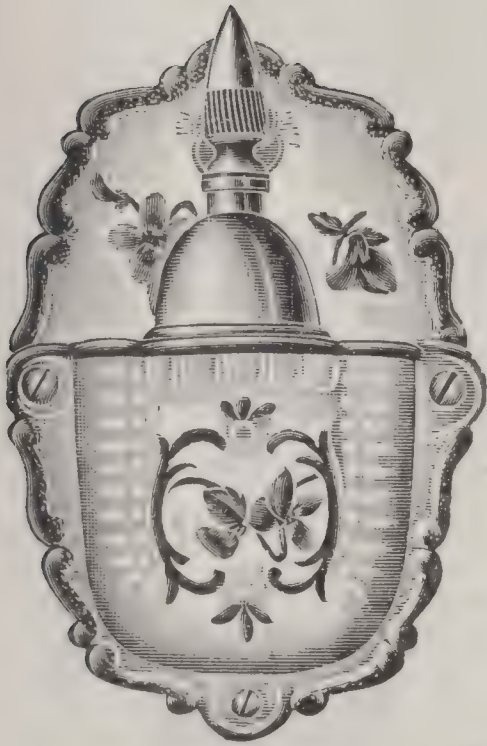
RHUMKORFF INDUCTION COIL.



List No. 3305.

List No.	Price.				
3305 1/8-inch Spark lights 4 burners.....	\$ 6 00;	may be run with 6 Cells, Fuller Batteries.			
3306 1/4 " " " 4 "	7 00;	"	"	6 " " "	"
3307 1/2 " " " 8 "	15 00;	"	"	6 " " "	"
3308 3/4 " " " 12 "	24 00;	"	"	8 " " "	"
3309 1 " " " 16 "	30 00;	"	"	8 " " "	"
3310 1 1/4 " " " 20 "	40 00;	"	"	8 " " "	"
3311 1 1/2 " " " 24 "	49 00;	"	"	12 " " "	"
3312 2 " " " 32 "	62 00;	"	"	12 " " "	"
3313 2 1/2 " " " 40 "	70 00;	"	"	12 " " "	"
3314 3 " " " 45 "	75 00;	"	"	16 " " "	"
3315 3 1/2 " " " 50 "	85 00;	"	"	16 " " "	"
3316 4 " " " 55 "	90 00;	"	"	18 " " "	"
3317 5 " " " 60 "	100 00;	"	"	18 " " "	"
3318 6 " " " 75 "	150 00;	"	"	22 " " "	"

THE EVER READY ELECTRIC CIGAR LIGHTER.



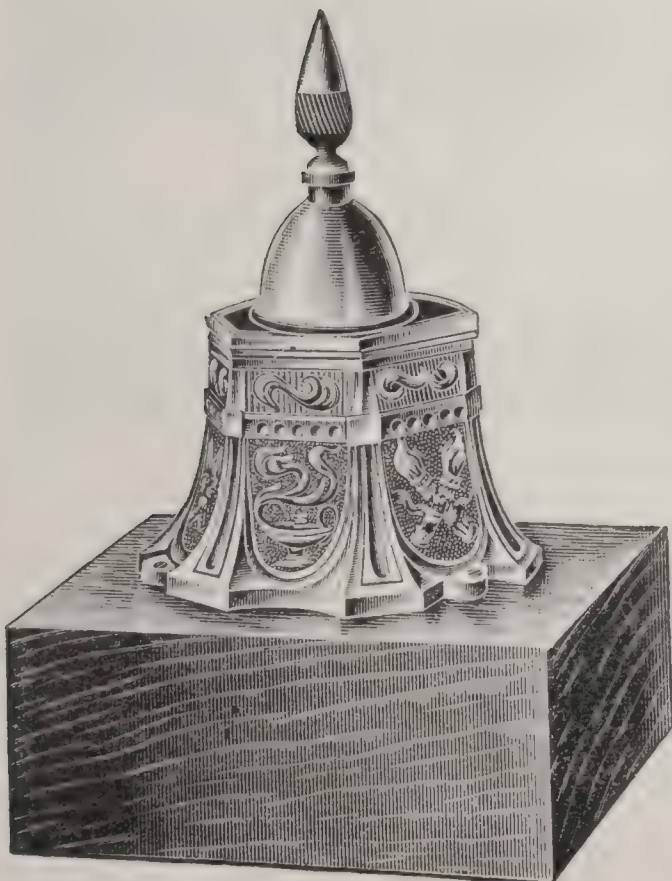
WALL TYPE FOR DIRECT CURRENT.

This Cigar Lighter is made of high grade Porcelain and nicely decorated in colors. Has a very ornamental appearance and can be depended upon to ignite every time.

The Torch is Nickel-Plated and should be filled with Gasoline only.

Lighter is furnished complete with Cord and Attachment Plug.

List No.	Price.
5320 Cigar Lighter, 110 Volt, complete	\$5 00



CIGAR LIGHTER FOR BATTERY.

This Lighter is intended for use where direct current is not to be had.

The Fount and Torch are made of fancy finished metal and mounted on polished Oak base.

Gasoline should be used in the Torch.

The Battery should give from 5000 to 8000 lights.

Battery is contained in Wood Base and can be removed and replaced without trouble.

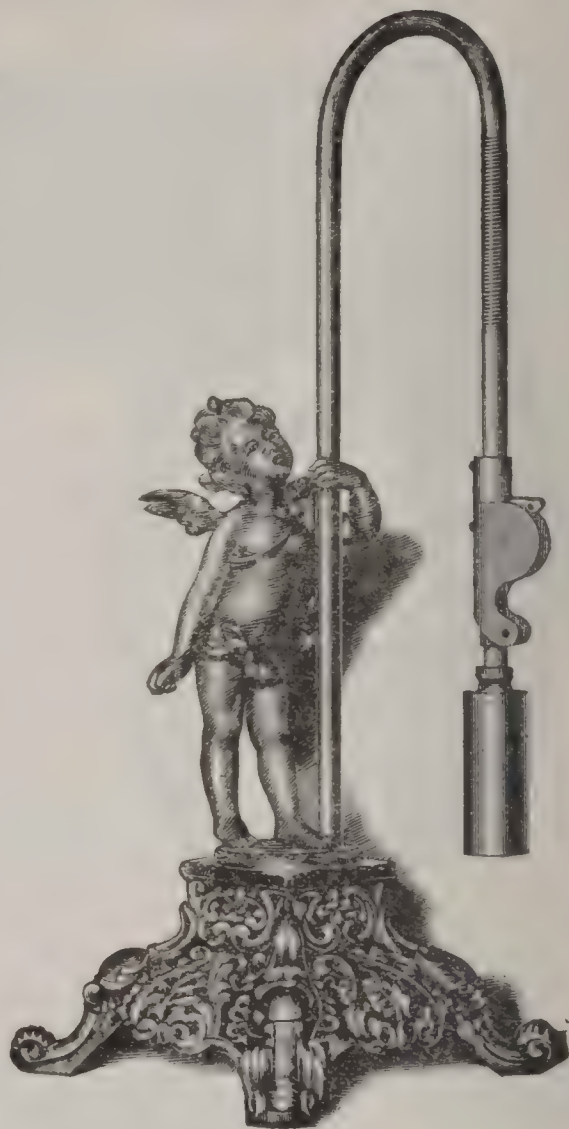
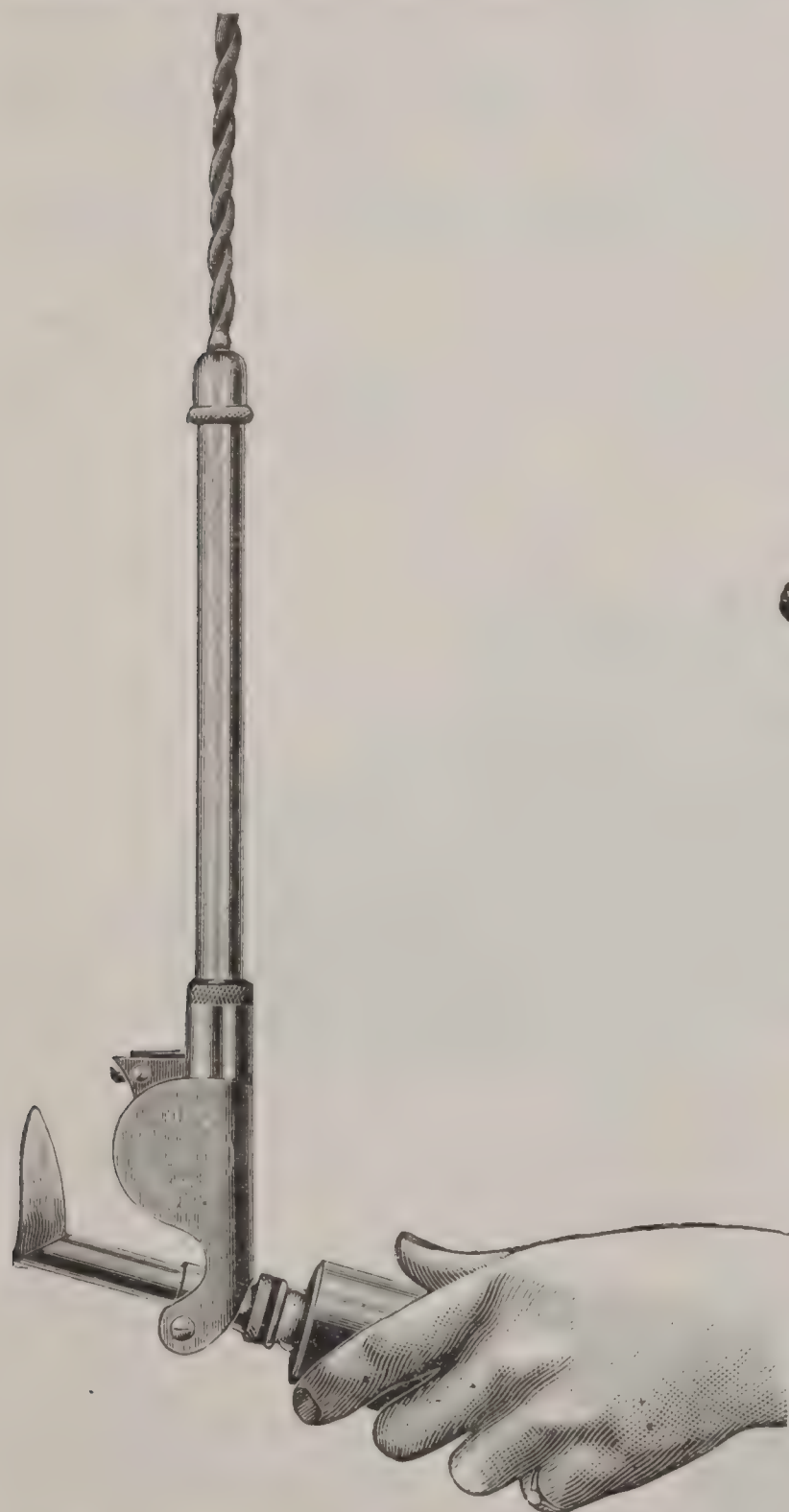
List No.	Price.
5308 Cigar Lighter, complete.....	\$5 00
5276 Extra Battery	30

STAR ELECTRIC CIGAR LIGHTERS.

(PATENTED.)

This Cigar Lighter is made entirely of brass, heavily nickel-plated, has indestructible asbestos wick. The wearing parts are of tool steel. The lighter is suspended from the ceiling, or an arm, by an incandescent lamp cord which serves also as a conductor from battery to lighter. Height from counter easily adjusted. The battery can be put in any convenient place.

Furnished complete with batteries, spark coil and full directions for putting up.



The base and statue of Cupid are made of metal, and the whole, including lighter and arm, is finely finished in oxidized copper, making a very handsome and showy appearance. Height over all 22 inches.

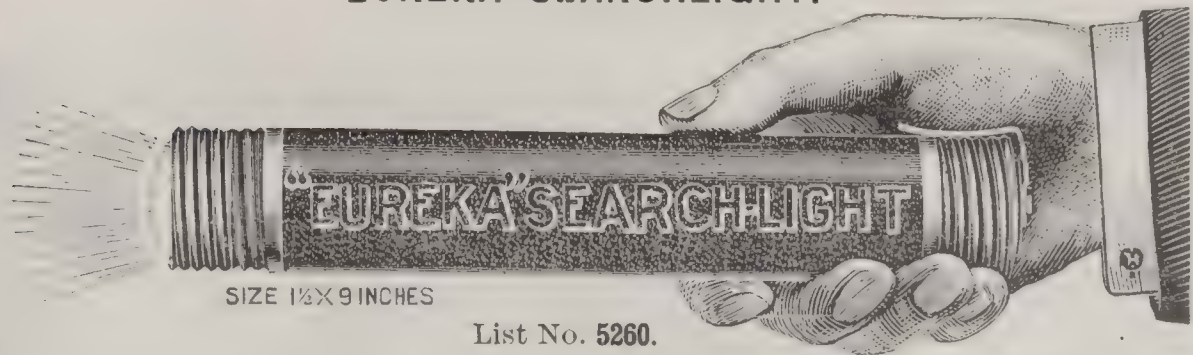
This lighter is portable, and can be set on cigar case, counter pedestal or wherever desired. and the battery and spark coil can be set under the counter or any place convenient.

List No.	Price.
5326 Cigar Lighter, complete, with batteries.....	\$6.00

List No.	Price.
5327 Cigar Lighter, complete, with batteries.....	\$10.00

ELECTRIC NOVELTIES.

EUREKA SEARCHLIGHT.



This is a substantial and well made outfit. The Case is of Metal, covered with a soft Leatherette outer covering. All of the exposed metal parts are heavily Nickel-plated. The Reflector is Silver-plated and highly polished. The Lamp is of two candle power, but with the Special Reflector and Lens the light is greatly intensified. The contact is made by pressing the long Metal Spring against the Screw Cap of the Base (as per illustration). Has also a Patent Spring Contact Attachment.

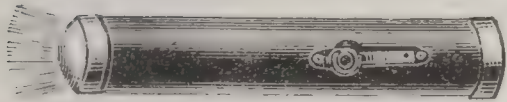
One set of batteries will illuminate the Lamp several thousand times. Batteries can be changed by unscrewing the Cap at the base which allows the old Batteries to slide out and new ones to be inserted, and when Cap is replaced the outfit is ready for use again. You will find this Searchlight very handy for any occasion when a light is desirable for a short time. It is absolutely safe.

They are used in gas houses, powder mills, oil refineries and thousands of other places. We guarantee each one to work satisfactorily.

List No.		Price.
5260	Searchlight as illustrated, with Battery	\$1 00
5261	Extra Battery	30
5262	Extra Bulb.....	35

THE EVER READY ELECTRIC FLASH LIGHTS.

BABY FLASH LIGHT.



List No.		Price.
13082	Size, 1x6 inches, complete.....	\$1 25
13083	Extra Battery	25

REGULAR FLASH LIGHT.



List No.		Price.
13084	Size, 1 1/2 x 8 1/2 inches, complete.....	\$1 50
5261	Extra Battery	30
13085	Size, 1 1/2 x 11 inches, complete.....	2 00
5357	Extra Battery	30
13086	Size, 1 1/2 x 13 inches, complete.....	2 50
5359	Extra Battery	50

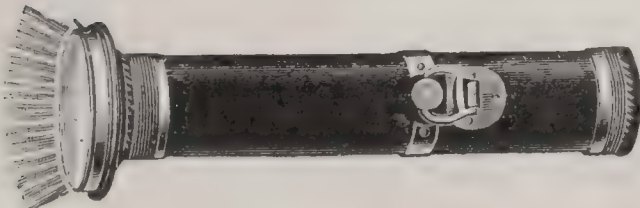
IMPROVED FLASH LIGHT.

The Tube of this Flash Light is made of Hard Fibre, it is highly polished and will not corrode.



List No.		Price.
13087	1 1/2 x 8 inches, complete	\$2 00
5261	Extra Battery	30
13088	1 1/2 x 11 inches, complete	2 50
5357	Extra Battery	30
13089	1 1/2 x 13 inches, complete.....	3 00
5359	Extra Battery	50

MINERS' FLASH LIGHT.



These Lights are provided with large Lenses and highly polished Reflector. This enlarges the field of the Beam, so that a larger area of dark surroundings can be immediately seen and explored, an advantage in many cases. Lens Cap is fixed with Snap and Hinge, enabling lens to be swung open to reach Lamp Bulb. Has new style Catch, giving permanent light if desired.

List No.		Price.	List No.		Price.
13090	Size, 1 1/2 x 8 1/2 inches, complete. \$2 75		5357	Extra Battery	\$0 30
5261	Extra Battery	30	5358	Size, 1 1/2 x 13 inches, complete..	8 75
5356	Size, 1 1/2 x 11 inches, complete..	3 25	5359	Extra Battery	50

THE "EVER-READY" ELECTRIC INTERIOR SEARCHLIGHT.

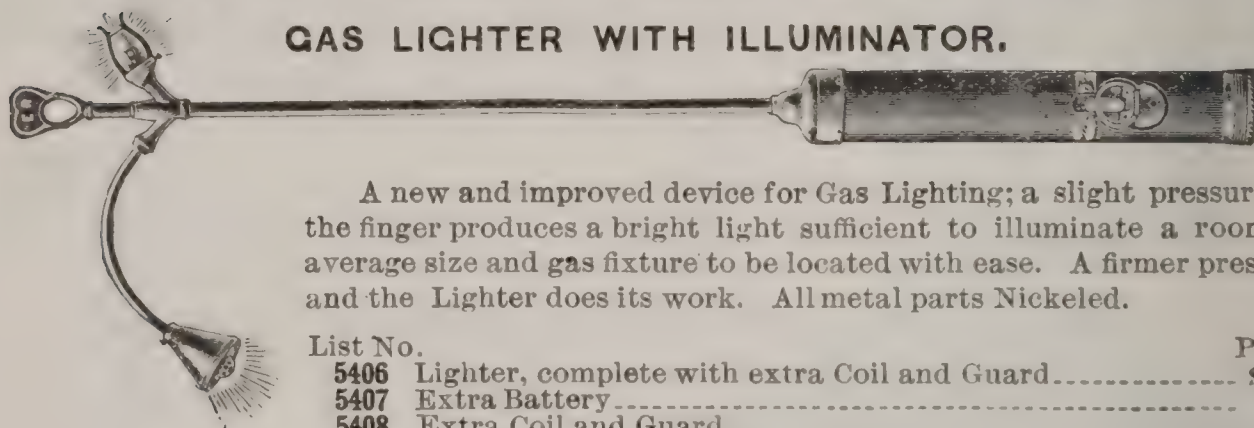


This Searchlight is expressly made for the purpose of Examining the interior of Barrels, Hogsheads, etc., where an ordinary lamp would be dangerous or useless. The article is strongly made; highly polished Nickel Rod, Top and Base Caps. The Bulb is protected by a Guard.

List No.		Price.
5403	Searchlight, complete with Battery	\$6 00
5404	Extra Battery	50
5405	Extra Bulb	50

"EVER READY" GAS LIGHTERS.

GAS LIGHTER WITH ILLUMINATOR.



A new and improved device for Gas Lighting; a slight pressure of the finger produces a bright light sufficient to illuminate a room of average size and gas fixture to be located with ease. A firmer pressure and the Lighter does its work. All metal parts Nickerled.

List No.		Price.
5406	Lighter, complete with extra Coil and Guard	\$4 50
5407	Extra Battery	30
5408	Extra Coil and Guard	57

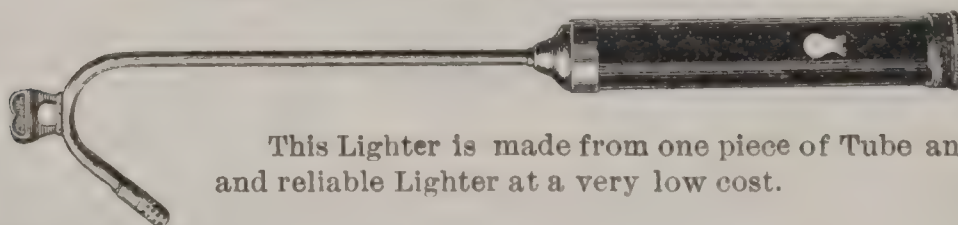
PLAIN GAS LIGHTER.



Same as above but without light.

List No.		Price.
5314	Lighter, complete with one extra Coil and Guard	\$3 50
5315	Extra Battery	30
5191	Extra Coil and Guard	75

COMPETITION GAS LIGHTER.



This Lighter is made from one piece of Tube and is a strong and reliable Lighter at a very low cost.

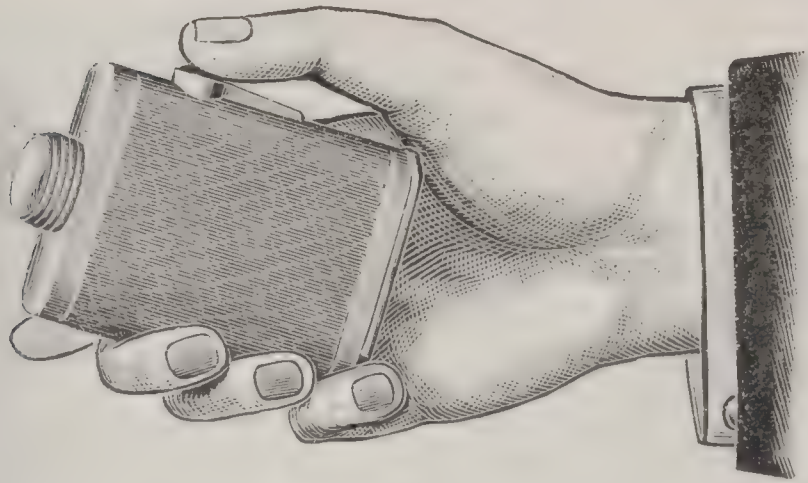
List No.		Price.
13091	Lighter, complete	\$2 00
13092	Extra Battery	30
13093	Extra Coil	50

"EVER READY" RANGE LIGHTER.

An Electrical Instantaneous Lighter for all Gas Ranges, Gas Stoves, Gas Heaters, etc. Very handy and absolutely safe.

List No.		Price.
5316	Range and Gas Lighter, complete	\$1 75
5317	Extra Battery	50
5194	Extra Igniting Coil	50

ELECTRIC NOVELTIES.

**EUREKA VEST
POCKET FLASH LIGHT.**

This is a practical and durable article. Will be found very useful around the House, Camp, Automobile, Yacht, etc.

Size, $2\frac{7}{8} \times 3\frac{3}{4} \times 1$ inches.

Covered with Leatherette, Nickel Trimmings.

List No.	Price.
5372 Light, complete ---	\$0 90
5373 Extra Battery -----	30

**"EVER READY" VEST POCKET FLASH LIGHT.**

A Constant Companion.

This is a very fine article, has Alligator Cover and highly polished Nickel-Plated Trimmings.

List No.	Price.
5382 Light, complete	\$1 10
5373 Extra Battery	30

**"EVER READY" VEST POCKET FLASH LIGHT.**

Edition de Luxe.

The Case of this Light is made of Hard Fibre, will not corrode or stick to Battery; this is the most durable case. All trimmings are Nickel-Plated.

List No.	Price.
5383 Light, Complete	\$1 25
5373 Extra Battery	30

"EVER READY" COAT POCKET FLASH LIGHT.

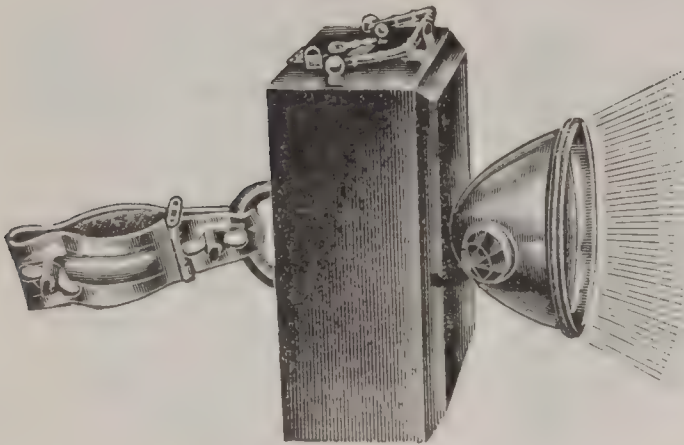
Size, $1\frac{1}{8} \times 3\frac{3}{8} \times 5$ inches.

Weight, 20 ounces.

This is a large edition of the Vest Pocket Style; it is equipped with large durable Battery and a high Candle Power Lamp, giving the maximum amount of light and life. Has a large Lens and Reflector, and throws a strong, bright light over a wide range. Has Snap Switch giving permanent light, when required.

List No.	Price
5384 Light, complete	\$1 25
5394 Extra Battery	35

ELECTRICAL NOVELTIES.

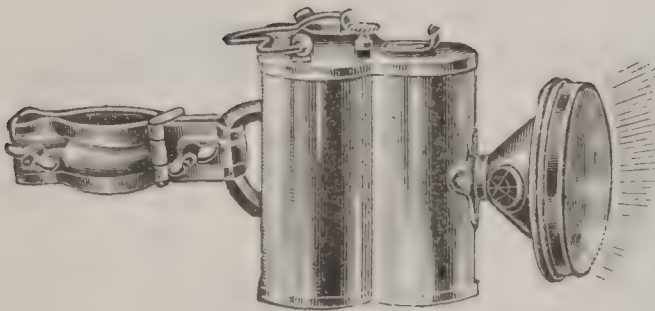


'EVER READY" BICYCLE LAMP.

Case of polished Oak or Ebony. . Fine Lens, highly polished Parabolic Reflector. Ruby and Emerald Side Lights. Polished Nickel Trimmings.

To light up, no need to get off your bicycle, simply press handle down into lock-snap in front.

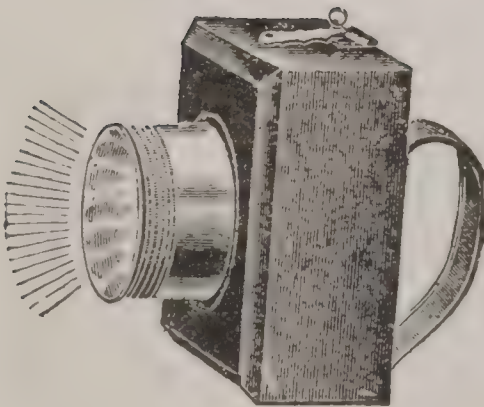
List No.	Price.
5195 Complete with Battery.....	\$3 50
5276 Extra Battery.....	30



THE CLOVER LEAF BICYCLE LAMP.

All the recent improvements. Superior Lens. Protected Lens Cap Snap. Ruby and Emerald Side Lights. Of highly polished nickel, in cross-section like a clover leaf, which corrugation increases the strength and stiffness of the case while adding to its beauty.

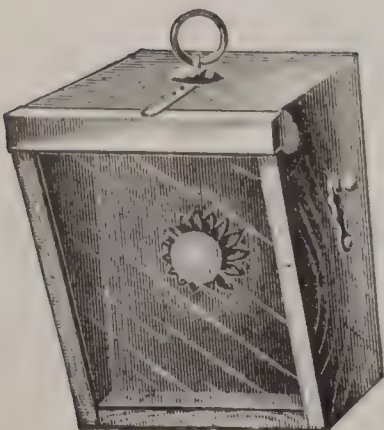
List No.	Price.
5271 Complete with Battery	\$4 00
5272 Extra Battery.....	30
5196 Extra Bulbs.....	50



"EVER READY" HOUSE LAMP.

This Lamp has a fine Lens and new Corrugated Reflector. All metal parts Nickel-Plated. Very handy to have around the house.

List No.	Price.
13098 Complete with Battery.....	\$3 00
5276 Extra Battery	30
5196 Extra Bulbs.....	50



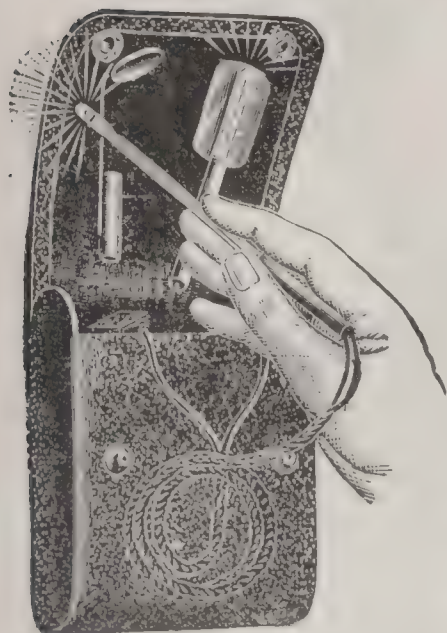
"EVER READY" RUBY LAMP.

This is a very neat design, and is a favorite with the amateur photographer.

The Ruby Glass can be raised and held in place and a strong white light can be had. Very handy when traveling.

List No.	Price.
13099 Complete with Battery	\$2 50
5276 Extra Battery	30
5196 Extra Bulbs	50

THE NEW "EVER-READY" POCKET SURGICAL AND DENTAL LAMPS.



List No. 5653
SIZE, 5x4x1½ INCHES.

Can be Folded up and Carried in the Pocket.

Equipped with short 3½ volt bulb for ordinary purposes.

Also long antiseptic bulb for operative work.

Adjustable reflecting mirror for dental work.

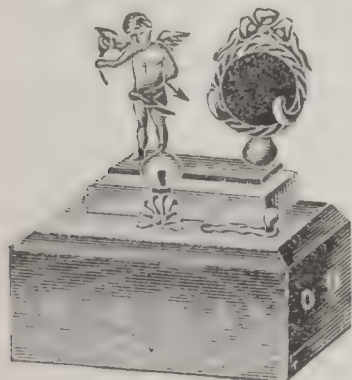
Strong, well made tongue depressor.

Handsome Morocco finish case.

List No.	Price.
5653 Complete with two bulbs.....	\$5 00
5654 Extra battery.....	30
5655 " short bulb, each.....	60
5656 " long " "	1 00

"EVER-READY" ELECTRIC WATCH STANDS.

CUPID WATCH STANDS.

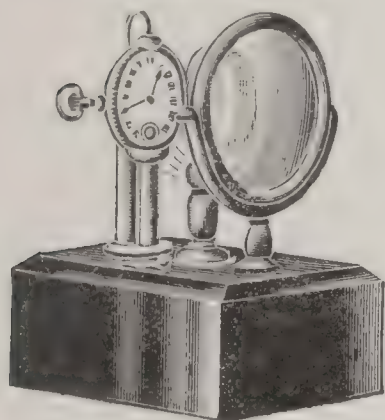


Watch stand and figure are beautifully gilded and mounted on polished onyx base.

A very handsome outfit.

List No.	Price.
5275 Watch stand complete, with battery.....	\$3 50
5276 Extra battery.....	30

LENS WATCH STAND.



Sliding spring holder will hold any size watch.

Magnifying glass enlarges the dial so the time can be readily seen from a distance.

Neat, well made and nicely nickel-plated.

List No.	Price.
5657 Watch stand with battery.....	\$4 00
5658 Extra battery.....	30

BOUDOIR WATCH STAND.

Watch rests on velvet cushion in frame; it has large pin tray and is a very pretty and convenient article.

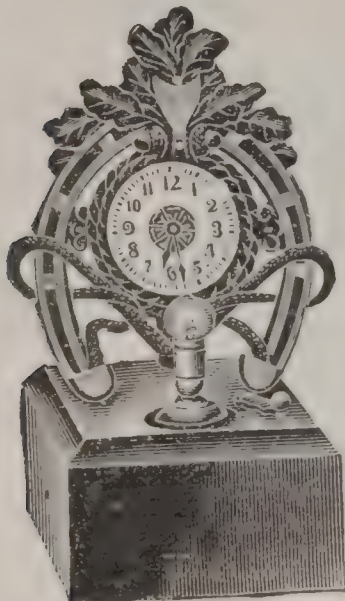
List No.	Price.
5281 Watch stand, with battery complete.....	\$3 50
5282 Extra battery.....	30



Any of the above watch stands provided with long flexible cord, 12 feet, with drop push button, which can be attached to any convenient part of room, or over bed, and the slightest touch of the button produces a light, which not only suffices to see the time, but renders any object in a dark room clearly visible.

List No.	Price.
5671 12 foot cord and push only.....	\$0 50
5668 Extra bulbs for watch stands.....	50

THE "EVER READY" ELECTRIC CLOCKS.



List No. 5291.

HORSESHOE CLOCK.

A very neat pattern, finished in black and gilt.

List No.	Price.
5291 Horseshoe Clock with battery.....	\$4.50
5276 Extra battery.....each,	.30



List No. 5288.

MAGNOLIA CLOCK.

This is a very handsome design with lamp suspended over clock. Full gilt finish.

List No.	Price.
5288 Magnolia Clock with battery.....	\$6.50
5276 Extra battery.....each,	.30

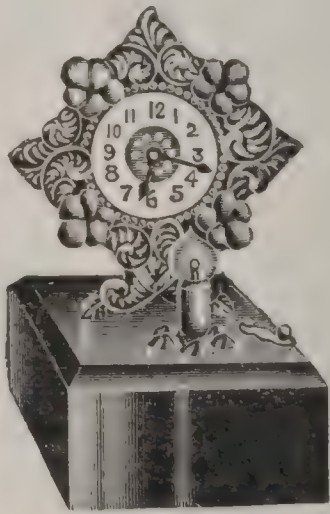


List No. 5286.

FLORENCE CLOCK.

Full gilt clock on polished base. A prime favorite.

List No.	Price.
5286 Florence Clock with battery.....	\$6.00
5276 Extra battery.....each,	.30



List No. 5669.

PANSY CLOCK.

Clock is finished in gilt and colors producing a very pretty effect.

List No.	Price.
5669 Pansy Clock with battery.....	\$6.00
5276 Extra battery.....each,	.30

If desired, we can furnish any of these clocks with long flexible cord, 12 to 15 feet, with drop push button, to depend from any part of room or over bedstead, needing only a touch to see clock or get light at any time of night without rising.

List No.	Price.
5671 12-ft. Cord and Pear Push.....	\$0.50
5672 Extra bulbs for any of the above clocks.....	.50

THE "EVER READY" ELECTRIC CANDLES.



List No. 7925

These candles are suitable for the bed room, nursery, and general house use.

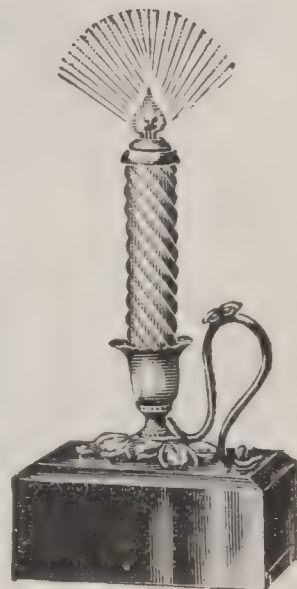
They are ideal for dining table decorations, and make an appropriate holiday, birthday or wedding present.

Bases are made in both Oak and Ebony.

MYSTIC CANDLE.

This cannot be distinguished from the ordinary wax candle. The candle part is white enameled, and the base is nickel-plated and highly finished.

List No.	Price.
7925 Mystic Candle, complete with battery	\$3.50
7926 Extra battery .....	.30



List No. 7927

ETRUSCAN CANDLE.

White Candle, with the candle-stick beautifully enameled in color and gold.

List No.	Price.
7927 Etruscan Candle, complete with battery	\$5.50
5276 Extra battery .....	.30

"SAVOY" CANDLE.

This is a very handsome candle, silver-plated and nicely finished, an ornament to any home.

List No.	Price.
7929 "Savoy Candle," complete with battery	\$5.00
5276 Extra battery .....	.30



List No. 7929

THE "EMPIRE" CANDLE.

This candle is shown with a rose shade, which adds greatly to its beauty.

Silver-plated and finely finished.

List No.	Price.
7931 "Empire" Candle, complete with shade and battery....	\$6.00
7932 "Empire" candle, complete with battery, no shade ...	5.00
5276 Extra battery .....	.30



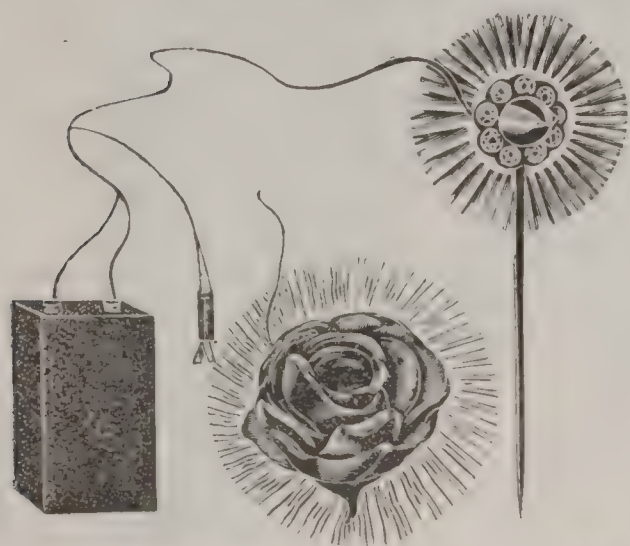
List No. 7931
Candle with Shade.

Any of the above candles can be fitted with translucent rose shades, which are made in the following varieties: Tea Rose, Marshal Niel, American Beauty.

List No.	Price.
7934 Rose Shade only	each, \$1.00
State choice when ordering.	
7935 Extra Bulbs for above candles .....	.50

ELECTRIC SCARF PINS.

ELECTRIC LIGHT CLUSTER SCARF PIN.



List No. 9099. List No. 9098

This is a handsome cluster scarf pin set with brilliant stones which sparkle like diamonds when light is turned on.
It is a very fine outfit and is sure to give satisfaction.

List No.	Price.
9098	Pin complete, with dry battery, connecting cords and push.....each, \$2.00
9096	Extra dry battery..... .80

ELECTRIC ROSE BUTTONHOLE FLOWER.

A very unique article When light is turned on it glows with a rich red hue of great beauty.

List No.	Price.
9099	Rose complete, with dry battery, connecting cords and push.....each, \$2.00
9096	Extra dry battery..... .80



List No 9095.

THE SKULL SCARF PIN.

Made of pure ivory.
Very realistic and startling.
When lighted the skull becomes transparent.

List No.	Price.
9095	Pin complete, with dry battery, connecting cords and push.....each, \$3.00
9096	Extra dry battery..... .80



List No. 9097

THE ELK SCARF PIN.

Made of pure ivory
This is a fine carving and makes a very hand some ornament.
When lighted it becomes transparent.

List No.	Price.
9097	Pin complete, with dry battery, connecting cords and push.....each, \$2.50
9096	Extra dry battery..... .80

DECORATIVE OUTFITS.

FOR INTERIOR DECORATION WITH MINIATURE ELECTRIC LAMPS.



Every home should be provided with a Decorative Outfit.

It offers a simple, convenient and pleasing method of decorating and festooning with miniature Electric Lamps.

It is especially commended for lighting Christmas Trees and for all interior decoration where lighting effects are desired. It is perfectly safe, substantially constructed, and readily applied.

The Outfit consists of one or more Festoons of Silk Covered Flexible Wire, each Festoon with eight Pendant Porcelain Sockets wired thereto and an Attaching Plug to be screwed into a convenient Lamp Socket, which supplies the necessary electric current.

The Outfit is securely packed in a neat, wooden box, to which it can be returned when not in use.

It will last for many years, so when once purchased the expense of maintenance is practically confined to renewing the Lamps occasionally as they burn out.

A full supply of Lamps with a few extra ones, is supplied with each Outfit, of three colors: Clear, Frosted and Red.

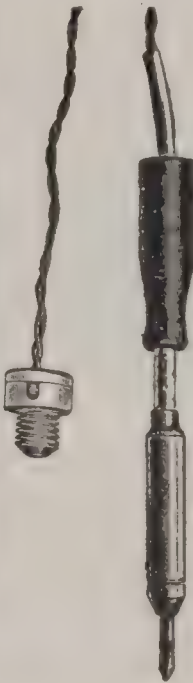
Considering the safety, convenience and flexibility of the Outfit, the cost is exceedingly low.

Each Outfit is so constructed that at any time the number of Lights may be increased or decreased by adding or removing one or more Festoons.

These Outfits can be supplied for use on all voltages running from 45 to 250, and in ordering be sure to state voltage of circuit.

List No.	Price.
13424 One Festoon (8 sockets), complete ; 9 Lamps furnished, 5 Clear, 2 Frosted, 2 Red	\$ 5 00
13425 Two Festoons (16 Sockets), complete ; 19 Lamps furnished, 13 Clear, 3 Frosted, 3 Red	8 50
13426 Three Festoons (24 Sockets), complete ; 28 Lamps furnished, 20 Clear, 4 Frosted, 4 Red	12 00
13427 Four Festoons (32 Sockets), complete ; 36 Lamps furnished, 24 Clear, 6 Frosted, 6 Red	15 00
13428 Extra Festoons (8 Sockets), ready to connect to any of the above outfits, with 9 Lamps, 6 Clear, 2 Frosted, 1 Red.....	4 00

ELECTRIC SOLDERING IRONS.



Recent improvements, both electrical and mechanical, have been made in these Irons. The small cost of operating, freedom from open gas, gasoline or charcoal fires, and their attending heat, odor and danger, and its continuously applied heat without "burning up the Tip," are features that have caused thousands of them to be used. The total weight of the larger Irons have been reduced, still retaining the full size and weight of Coppers. All tips are interchangeable on the same size of Irons and can be instantly removed.

List No.		Price.
7995	Telephone, Light Wire work. 3/4-inch diameter by 11 inches long, complete with Cord and Plug, 75 Watts..	\$6 00
	Extra Tip.....	50
7996	"Light," for small work. 1-inch-diameter by 12 inches long, complete with Cord and Plug, 100 Watts	6 25
	Extra Tip.....	60
7997	"Medium," equal to about a "two-pound Iron." 1 1/4-inch diameter by 15 inches long, complete with Cord and Plug, 200 Watts.....	6 50
	Extra Tip.....	65
7998	Equal to about a "three-pound Iron." 1 1/2-inch diameter by 15 1/2 inches long. Cord, no Plug, 275 Watts....	7 50
	Extra Tip.....	70
7999	Equal to about a "four-pound Iron." 1 3/4-inch diameter by 15 1/2 inches long. Cord, no Plug, 450 Watts.....	8 50
	Extra Tip.....	70

Can furnish any of the above Soldering Irons with Automatic Handle Switches when so ordered at an extra cost of \$2 00. With this addition the Iron cannot be laid anywhere except on its Stand without the current being instantly cut off.

IMMERSION COIL HEATERS.

ELECTRIC.



This useful form of Heater has many applications. It may be used for heating liquid contained in almost any kind of vessel, and has the advantage over any other form of liquid Heater of communicating all the heat generated to the liquid. The Coils consist of Copper Tubes varying from three-eighths to three-quarters of an inch in diameter, and are furnished Nickel-Plated unless otherwise ordered. They are made for alternating or direct current. Coil Heaters immersed in water in a covered vessel of proper size will boil water in about the time stated below, using maximum heat. Minimum heat will maintain the water at about the boiling point.



List Nos.	8045 and 13100.	1 pint, 10 minutes; 1 quart, 19 minutes; 2 quarts, 35 minutes.
"	8046 "	13101, 1 " 7 " 1 " 12 " 2 " 21 "
"	8047 "	13102, 1 " 5 " 1 " 8 " 2 " 15 "
"	8048 "	13103, 1 quart, 7 " 1 gallon, 25 " 2 gallons, 45 "
"	8049 "	13104, 1 " 5 " 1 " 20 " 2 " 35 "
"	8050 "	13105, 2 quarts, 8 " 1 " 15 " 3 " 42 "
"	8051 "	13106, 2 " 7 " 1 " 13 " 3 " 37 "
"	8052 "	13107, 1gallon,10 " 3 " 28 " 5 " 45 "

List No.		Watts.	Price.	List No.		Watts.	Price.
		Min. Med. Max.					
8045	One heat,	100 to 440.....	\$ 6 50	13100	Three heats,	110 220 440.....	\$8 00
8046	"	440 to 660.....	7 50	13101	"	165 330 660.....	9 00
8047	"	700 to 880.....	8 50	13102	"	220 440 880.....	10 00
8048	"	900 to 1100.....	10 00	13103	"	275 550 1100.....	12 00
8049	"	1200 to 1400.....	11 00	13104	"	350 700 1400.....	13 50
8050	"	1400 to 1650.....	13 00	13105	"	412 825 1650.....	16 00
8051	"	1700 to 2000.....	15 50	13106	"	500 1000 2000.....	18 00
8052	"	2100 to 2500.....	18 00	13107	"	625 1250 2500.....	21 50

ELECTRICALLY HEATED HOT WATER URNS.



JACKETED URNS.

These Urns are made of heavy Copper, Nickel-Plated, Double-Tinned inside, have Double Walls and Cover, with three-quarter-inch space filled with best Wool Felt and perfectly sealed.

They are well suited for use as coffee or tea Urns, and the very small amount of heat required to keep water hot makes the cost of operation cheaper than with gas under the usual conditions.

For long periods of service each day these Urns are much to be preferred. Three heat Switch.

List No.		Price.
13110	Plain Urn, 1 gallon, Cord only. Watts, 100 min., 500 max...	\$23 00
13111	" 1 " with Gauge Glass, Cord only. Watts. 100 min., 500 max.....	25 00
13112	Plain Urn. 2 gallons, Cord only. Watts, 125 min., 800 max..	29 00
13113	" 2 " with Gauge Glass, Cord only. Watts. 125 min., 800 max.....	31 00
13114	Urn, 2 gallons, with Gauge Glass and Tumbler Top. Watts. 125 min., 800 max.....	33 00



QUICK HEATING WATER URN.

This is a highly polished, Nickel-Plated Copper Urn with Faucet, arranged with Nickel-Plated Immersion Coil Heater, which will boil vigorously one quart of water in three minutes from the time of turning on the current. water at hydrant temperature. Sixteen inches high.

List No.		Price.
8005	2 quarts, Cord, no Plug. 1200 Watts.....	\$16 00



ORNAMENTAL URN.

For Cafe or Barbers' use.

This Urn is made of Copper, with Nickel-Plated Ornamental (removable) Heater. Three Heats, keep hot with fifty Watts. Can be connected to Lamp Socket. three Heat Switch

List No.		Price.
13115	3 pints, 12¾ in. high. Cord and Plug. Watts, 50 min., 250 max	\$11 00
13116	5 pints. Cord. no Plug. Watts, 150 min., 550 max.....	14 50

SPRAY COFFEE URNS.

These Heaters are highly finished in Nickel, each has Regulating Switch, also Clamps that hold the Urn securely in place.

Removing the Urn leaves a convenient Ornamented Heater that may be used for heating other utensils.

List No.		Price.
13117	2 pint Urn, with Cord and Plug. 200 Watts	\$14 25
13118	2½ " " " " " 500 "	17 25
13119	3½ " " " " " 500 "	17 75



Always give voltage when ordering.

ELECTRIC GLUE POTS.

PATENT RESERVOIR TYPE.



Heated by Coil Heater, arranged to give three divisions of heat. The maximum to be used to quickly heat the glue, and the minimum is usually sufficient to maintain the glue at the proper consistency. Absolutely no fire risk, as with Pots heated by gas or gasoline. Used in many book binderies, piano factories, brush factories, pattern shops, etc., etc.

All Pots are supplied with three Heat Regulators, and four feet of Cord, no Plug.

List No.		Watts			Price.
8030	1 pint, with Reservoir.	85 min.,	175 med.,	330 max..	\$13 50
8031	1 quart, " "	100 "	220 "	440 "	14 50
8032	2 " " "	170 "	330 "	660 "	16 00
8033	1 gallon, " "	275 "	550 "	1100 "	22 25

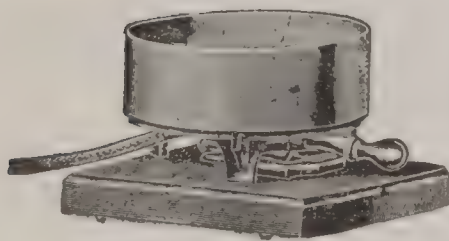
WITHOUT PATENT RESERVOIR.



With this Pot it requires from sixteen to twenty minutes to have the glue ready for use, starting with everything cold. The inner and outer Pot is of heavy Copper with Coiled Copper Heater. Much less time is required to heat the Patent Type, but in other respects they are equal, while the price is less. All pots have Heat Regulator and Cord, no Plug.

List No.		Watts			Price.
13121	1 pint.	110 min.,	220 med.,	440 max.	\$11 00
13122	1 quart.	170 "	330 "	660 "	12 00
13123	1 " "	220 "	440 "	880 "	13 50

ELECTRIC SOLDER POTS.



These Pots are so arranged that in starting the metal can be quickly melted, then the current reduced to maintain a uniform heat. They are specially useful for tinning the ends of wire and other small articles in electric repair shops. Three Heat Switch.

List No.		Watts			Price.
13124	Pot, 4 lbs. capacity, Cord and Plug.	100 min.,	150 med.,	200 max.	\$ 8 00
13125	Pot, 10 lbs., capacity, Cord, no Plug.	200 min.,	300 med.,	440 max.	12 00

SEALING WAX POTS.

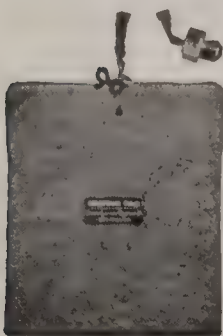


Where Sealing Wax is used in quantities it is more convenient and much safer to use melted wax for making seals.

Pots are of Spun Copper, Nickel-Plated, are provided with regulating switches and four feet of Cord. The maximum current is only required for first melting, and the low current, about one-fourth of the maximum, will keep wax at proper consistency.

List No.		Watts			Price.
8025	1/2-pint, 4 Heats, Cord, Plug and Switch.	175	Watts..		\$ 8 00
8026	1 1/2 " 4 " " and Switch,	300	Watts.....		12 00

IMPROVED ELECTRIC HEATING PADS.



This Heating Pad will reach and maintain permanently a temperature of 180° F. and no higher, absolutely safe and reliable. They are soft, light and flexible. Outside covering of Eiderdown that can be removed, an inner covering of fine Muslin, and are easily kept in a sanitary condition. Can be attached to any Lamp Socket and are furnished complete with long Cord and Plug.

Will last a lifetime. The cost of operating is very small.

List No.	Size,	1 Heat with Switch.	50 Watts	Price.
8055	12x15 inches,	1 " no "	50 "	\$ 6 00
8056	" 12x15 "	3 " with "	50 "	5 00
8057	" 12x15 "	3 " " "	50 "	6 50
8058	" 15x24 "	1 " " "	50 "	10 00
8059	" 15x24 "	3 " " "	50 "	12 00

It is necessary to state Voltage when ordering.

ELECTRIC CURLING IRON HEATERS.



WALL TYPE WITH DOUBLE GREASE PAINT TRAY.

This was designed to meet the severe requirements of theater use.

This device has separate Controlling Switches, so that the Curling Iron or Grease Paint may be independently heated.

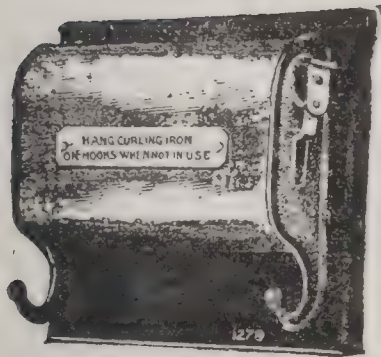
Arranged to screw to wall or mount on Standard Outlet Box, as ordered. Nickel-Plated and mounted on Enameled Slate. All Switches are a part of the device.

List No.	Price.
13127 Combination Curling Iron Heater and Grease Paint Heater, complete, Watts for Iron, 60; for Grease Heaters, 20.....	\$6 50

WALL TYPE CURLING IRON HEATER.

For Hotels, Steamships and Sleeping Cars.

Thousands of this type are in use on ocean liners, in the principal hotels and Pullman cars.



List No.	Price.
18128 Black Enameled Slate Base 5x5½ inches, Nickel-Plated, 60 Watts, Automatic Switch.....	\$4 50
13129 White Marble Base 5x5½ inches, Nickel-Plated, 60 Watts, Automatic Switch.....	5 00
13130 White Marble Base 5x5½ inches, Polished Brass, 60 Watts, Automatic Switch.....	5 00

CURLING IRON HEATERS.

These may be attached to any lamp socket, heat quickly, use no more current than an incandescent lamp, and do away with the use of more or less dangerous heating devices in the dressing room and the Tongs are always clean

When the Tongs are removed from the Heater the current is automatically cut off.

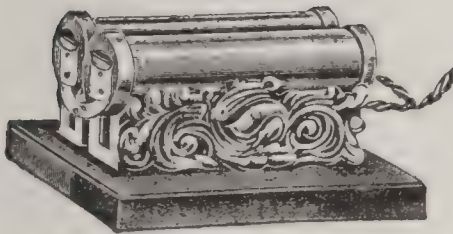


List No.	Price.
8060 Nickel-Plated, Marbleized Base, 60 Watts.....	\$3 00
8061 Polished Brass, " " " "	3 25
8062 Nickel-Plated, White Marble Base, 60 Watts.....	3 75
8063 Brass Polished, " " " "	4 00
8064 Nickel-Plated, Onyx Base, 60 Watts.....	4 50

DOUBLE CURLING IRON HEATER.

For Hair Dressers and Barbers.

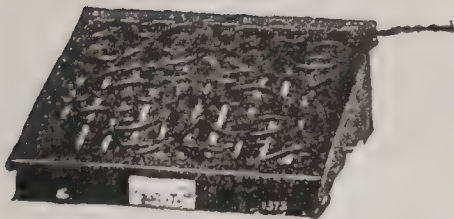
Has Brackets for Tongs on both sides. Each Heater Sixty Watts, Automatic Switch.



List No.	Price.
13131 Nickel-Plated, Enameled Slate Base.....	\$5 50
13132 " " White Marble "	6 00

ELECTRIC FOOT WARMERS.

This Heater is made with a Register Top, and arranged for three divisions of heat. When on low heat it fills the demand for a mild foot warmer, and on high heat it is quite effective for a local heater under the desk, or some similar location. Complete, with Cord and Switch.



List No.	Price.
8069 9x12 inch., One Heat, Weight 10 lbs., 200-400 Watts,	\$6 00
8070 " Three " " " 400 "	7 50

Always give Voltage when ordering.

PORTABLE ELECTRIC STOVES.



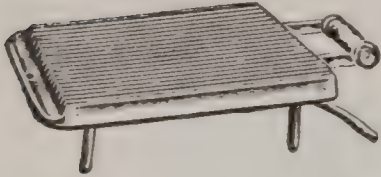
ELECTRIC DISC HEATERS.

Are so well known that no description is necessary.
Recent improvements have made them more efficient than earlier types.
All Stoves are mounted on Enameled Slate, have four feet of Special Cord and operate equally well on alternating or direct current.

Without Regulating Switches.		
List No.		Price.
7950	4½-in. Diam. Cord and Plug, 200 Watts	\$ 4 00
7951	6-in. Diam. Cord only, 440 Watts	5 00
7952	7-in. Diam. Cord only, 600 Watts	7 00
7953	8-in. Diam. Cord only, 825 Watts	9 00
7954	10-in. Diam. Cord only, 1100 Watts	12 00
7955	12-in. Diam. Cord only, 1300 Watts	15 00
13134	15-in. Diam. Cord only, 1800 Watts	18 00

With Regulating Switches. Giving Three Divisions of Heat.		
List No.		Price.
7956	4½ in. Diam., Cord and Plug. Watts, 55 min., 220 max.	\$ 6 00
7957	6-in. Diam., Cord only. Watts, 110 min., 440 max.	8 00
7958	7-in. Diam., Cord only. Watts, 120 min., 600 max.	9 00
7959	8-in. Diam., Cord only. Watts, 165 min., 825 max.	11 00
7960	10-in. Diam., Cord only. Watts, 275 min., 1100 max.	15 00
7961	12-in. Diam., Cord only. Watts, 325 min., 1300 max.	18 00
13135	15-in. Diam., Cord only. Watts, 450 min., 1800 max.	21 00

ELECTRIC BROILERS.



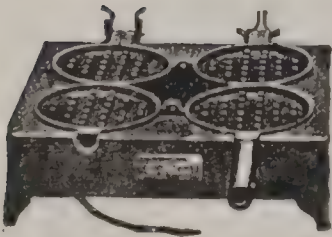
The Electric Broiler is the only proper device for broiling.		
List No.		Price.
7962	9x12 in. 3 ft. Cord, no Plug, 1300 Watts. One Heat...	\$12 00
13136	12x18 in. 3 ft. Cord, no Plug, 2200 Watts. One Heat...	17 00
13137	9x12 in. 3 ft. Cord, no Plug, 330-1300 Watts. Three Heat...	15 00
13138	12x18 in. 3 ft. Cord and Plug Switch, 730-2200 Watts. Three Heat...	20 00

GRIDDLE CAKE COOKERS OR TOASTERS.



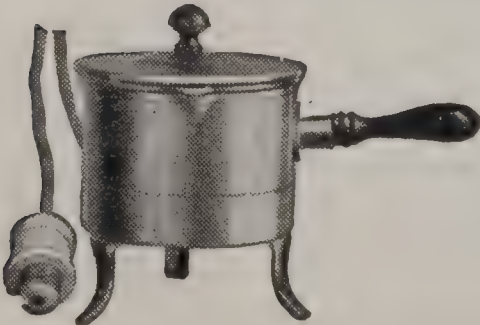
Give a constant and uniform temperature.		
List No.		Price.
13139	9x12 in. 4 ft. Cord, no Plug, 880 Watts. One Heat...	\$10 00
13140	12x18 in. 4 ft. Cord, no Plug, 1500 Watts. One Heat...	14 00
13141	9x12 in. 4 ft. Cord with Plug Switch, 330-880 Watts. Three Heat...	13 00
13142	12x18 in. 4ft. Cord with Plug Switch, 500-1500 Watts. Three Heat...	17 00

ELECTRIC WAFFLE IRONS.



Waffles are fine when properly made, and nowhere is electric heat more effective in producing a perfectly cooked product.		
List No.		Price.
13143	One Pair, Size Two Waffles, Plain Black Finish, 500 Watts	\$ 7 50
13144	One Pair, Size Two Waffles, Polished Nickel Frame. 500 Watts	10 00

INDISPENSABLE WATER HEATER.



This Water Heater is made in two sizes. The quart size will boil a cup of water in two minutes and the pint size in three minutes. Sanitary, light and portable. Polished Nickel Plate, complete, with Six-Foot Cord and Plug.		
List No.		Price.
13145	1 Pint Size, 400 Watts	\$5 00
13146	1 Quart Size. 550 Watts	6 50

Always state Voltage when ordering.

ELECTRIC IRONS.

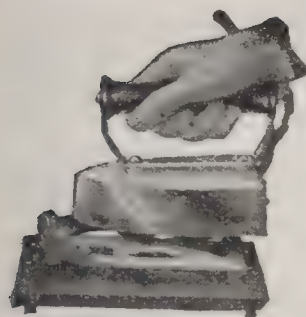
SMALL PRESSING IRONS.

TRAVELING IRONS.

This iron is thoroughly practical for the many minor uses one has for an Iron when living in hotels or traveling.

The Iron is Nickel-Plated, with Handle of light Wood, White Metal Stand mounted on a Slate Base. Size of Bottom, two and one-quarter inches broad, five and one-half inches long.

List No.	Price.
7967 Iron with Stand and 6 feet Cord with Plug, 200 Watts	\$4 50



SEWING ROOM IRON.

Larger than above, and therefore has a wider range of usefulness. Suitable for light pressing. Nickel-Plated. Weight, four and one-half pounds.

List No.	Price.
13148 Iron with Stand and 6 feet Cord with Plug, 280 Watts	\$5 00

HOUSEHOLD IRON.

This Iron is suitable for all light laundry requirements. Nickel-Plated. Size, three and five-eighths inches broad, six inches long; weight five pounds.

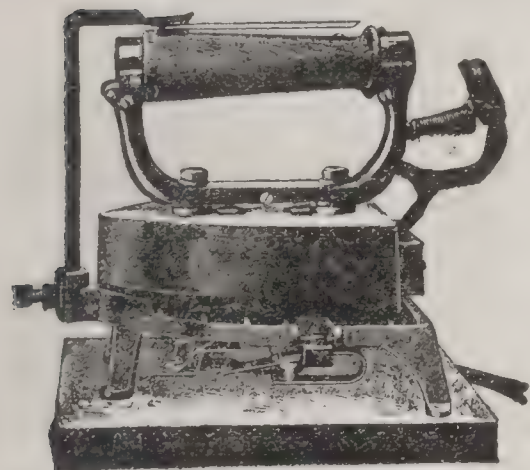
List No.	Price.
13149 Iron with Stand and Cord with Plug, 400 Watts	\$6 00

SMALL SILK HAT IRON.

Very useful when traveling. Special shape, two and three-eighths inches broad, four and three-fourth inches long; weight three and one-half pounds.

List No.	Price.
13150 Iron with Cord and Plug, 200 Watts	\$5 00

ELECTRIC LAUNDRY, FACTORY AND TAILORS' IRONS.



IRON WITH AUTOMATIC REGULATOR STAND AND AUTOMATIC HANDLE SWITCH.

In arranging our list of Irons, we have grouped kinds together and listed them:

First. Irons with Plain Stands.

Second. Irons with Automatic Regulator Stands.

Third. Irons with Plain Stands and Automatic Handle Switches.

Fourth. Irons with Automatic Regulator Stands and Automatic Handle Switches.

The first are suitable for all occasional demands requiring an Iron for short intervals, and where the Temperature Regulator would be of little use—the third meet the same conditions and are provided with a Handle Switch to cut off the current automatically should the Iron be placed anywhere but on its proper stand—the second list covers Irons with Automatic Temperature Regulator Stands, and these should be used in all cases in laundries or factories, wherever the Irons are generally in service.

On page 256 are listed special Plug Switches which are preferable to connect the Irons in circuit. With a Plug Switch there is never any doubt as to whether the current is turned on or not.

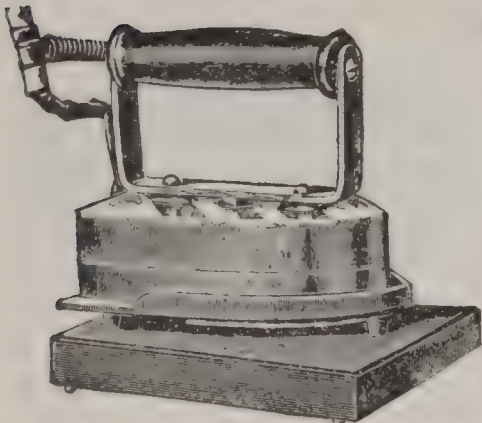
The Automatic Temperature Regulator is one of the most valuable improvements made in connection with the development of Electric Irons. As shown, it consists of a Stand to receive the Iron. It is so arranged that the current supplied to the Iron when on the Stand is only that necessary to maintain working temperature. On removal the extra heat supply required for the work is put into the Iron by the flow of current to its full capacity. It cheapens the cost of operation from twenty to thirty per cent, prevents injurious overheating, which otherwise always occurs, permits Irons being kept ready for immediate use at minimum cost, and avoids accidental burning of work. This device is sold only with Irons listed.

ELECTRIC IRONS.

LAUNDRY IRONS.

With Plain Stand. No Regulator.

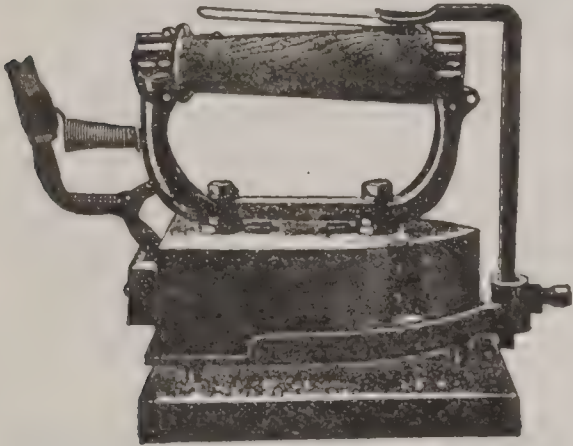
These Irons are polished with Nickeled Handle and Light Wood Grip. The Stand is cast iron mounted on a Slate Base. Six feet of Cord with each Iron. Always give voltage when ordering.



List No.		Watts.	Price.
13152	5½ lbs. "Light Domestic" for thin work.	450	\$7 00
13153	7½ lbs. "Domestic" for general use in the household, hotels and public institutions	540	7 50
13154	9 lbs. "Heavy Laundry" for wet work	640	8 00

With Automatic Regulator Stand.

List No.		Watts.	Price.
13155	5½ lbs. "Light Domestic," with Reg	450	\$10 25
13156	7½ lbs. "Domestic," with Reg	540	10 75
13157	9 lbs. "Heavy Laundry," with Reg	610	11 25



With Automatic Handle Switch and Plain Stand.

List No.		Watts.	Price.
13158	6½ lbs. "Light Domestic," with Handle Switch	450	\$9 50
13159	8½ lbs. "Domestic" with Handle Switch	540	10 00
13160	10 lbs. "Heavy Laundry" with Handle Switch	610	10 50

With Automatic Regulator Stand and Automatic Handle Switch.

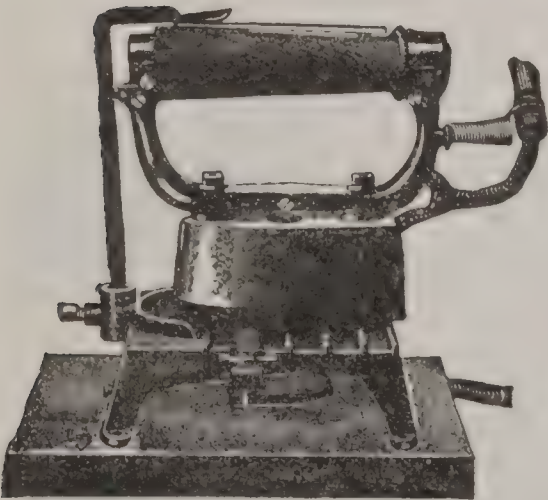
List No.		Watts.	Min.	Max.	Price.
13161	6½ lbs. "Light Domestic" with Reg. and Switch	275	450		\$12 75
13162	8½ lbs. "Domestic" with Reg. and Switch	325	540		13 25
13163	10 lbs. "Heavy Laundry," for wet goods	375	610		13 75



POLISHING IRONS.

With Plain Stand. No Regulator.

List No.		Watts.	Price.
13164	3½ lbs. Troy Diamond Face	330	\$6 00
13165	3½ lbs. Diamond Face for Tyler Mach.	330	6 50
13166	5½ lbs. Morocco Face, pointed Nose	450	7 00
13167	5½ lbs. Morocco Face, round Nose	450	7 00



With Automatic Regulator Stand.

List No.		Watts.	Min.	Max.	Price.
13168	3½ lbs. Troy Dia. Face, with Reg.	255	330		\$9 25
13169	3½ lbs. Dia. Face, with Reg.	255	330		9 75
13170	5½ lbs. Morocco Face, pointed nose, with Reg.	275	450		10 25
13171	5½ lbs. Morocco Face, round nose, with Reg.	275	450		10 25

With Plain Stand and Automatic Handle Switch.

List No.		Watts.	Price.
13172	4½ lbs. Troy Dia. Face, with Sw.	330	\$8 50
13173	4½ lbs. Dia. Face for Tyler Mch., with Sw.	330	9 00
13174	6½ lbs. Mor. Face, pointed Nose, with Sw.	450	9 50
13175	6½ lbs. Mor. Face, round Nose, with Sw.	450	9 50

With Automatic Regulator Stand and Automatic Handle Switch.

List No.		Watts.	Min.	Max.	Price.
13176	4½ lbs. Troy Diamond Face, with Switch	255	330		\$11 75
13177	4½ lbs. Diamond Face, with Switch	255	330		12 25
13178	6½ lbs. Morocco Face, pointed Nose, with Switch	275	450		12 75
13179	6½ lbs. Morocco Face, round Nose, with Switch	275	450		12 75

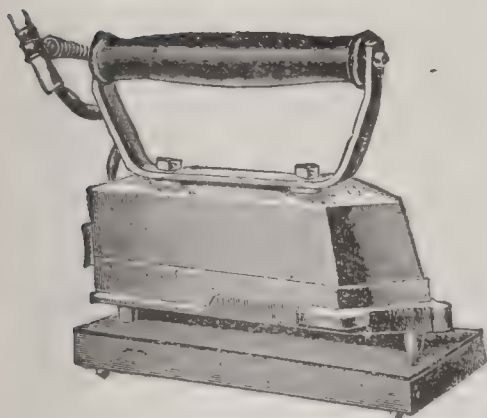
ELECTRIC IRONS.

TAILORS IRONS.

With Plain Stand. No Regulator.

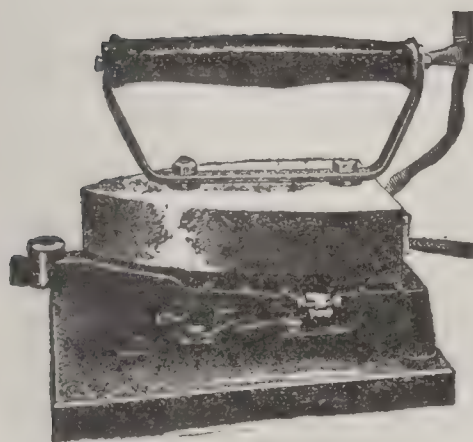
The Irons are polished, with Nickel Handle and Light Wood Grip. A Plain Stand of Cast Iron on a Slate Base and six foot of Cord is included in the prices given.

State voltage when ordering.



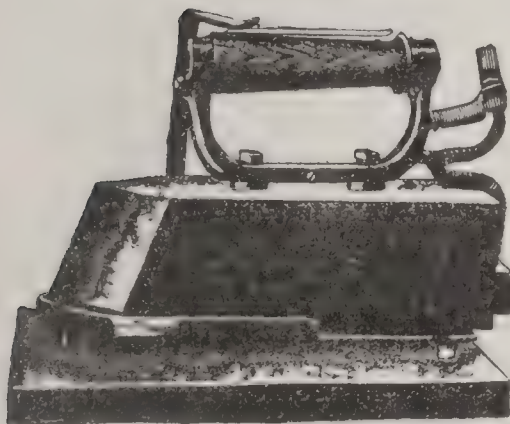
List No.				Watts.	Price.
13180	12 lbs.	Diamond Nose,	9 x 2¾ in.	660.....	\$ 9 25
13181	15 "	"	"	9 x 2¾ in.	9 75
13182	18 "	"	"	9 x 2¾ in.	10 50
13183	20 "	"	"	11 x 3 in.	11 00
13184	25 "	"	"	11 x 3 in.	12 00
13185	15 "	Oval	"	11 x 3½ in.	10 00
13186	20 "	"	"	11 x 3½ in.	11 00
13187	25 "	"	"	11 x 3½ in.	12 00
13188	12 "	Special Broad,	8 x 6 in.	770.....	9 25
13189	15 "	"	"	8 x 6 in.	9 75
13190	18 "	"	"	8 x 6 in.	10 50
13191	25 "	"	"	8 x 6 in.	12 00

With Automatic Regulator Stand.



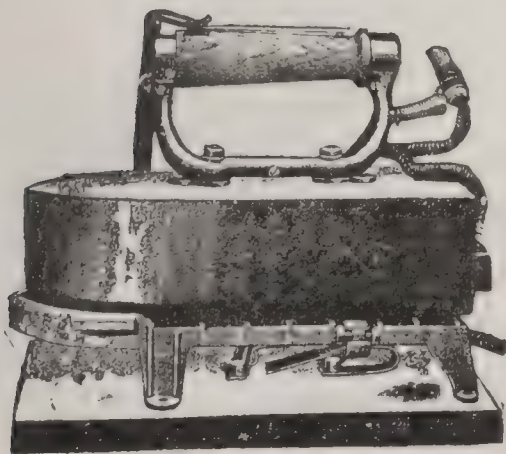
					Watts.		
					Min.	Max.	
13192	12 lbs.	Diamond Nose,	9 x 2¾ in.	400	660...	12 50	
13193	15 "	"	"	9 x 2¾ in.	400 660...	13 00	
13194	18 "	"	"	9 x 2¾ in.	400 660...	13 75	
13195	20 "	"	"	11 x 3 in.	530 770...	14 25	
13196	25 "	"	"	11 x 3 in.	530 880...	15 25	
13197	15 "	Oval	"	11 x 3½ in.	530 770...	13 25	
13198	20 "	"	"	11 x 3½ in.	530 770...	14 25	
13199	25 "	"	"	11 x 3½ in.	530 935...	15 25	
13200	12 "	Special Broad,	8 x 6 in.	530	770...	12 50	
13201	15 "	"	"	8 x 6 in.	530 770...	13 00	
13202	18 "	"	"	8 x 6 in.	530 880...	13 75	
13203	25 "	"	"	8 x 6 in.	530 880...	15 25	

With Plain Stand and Automatic Regulator Handle.



				Watts.		
13204	13 lbs.	Diamond Nose,	9 x 2¾ in.	660-----	11 75	
13205	16 "	"	"	9 x 2¾ in.	660-----	12 25
13206	19 "	"	"	9 x 2¾ in.	660-----	13 00
13207	21 "	"	11 x 3 in.	770-----	13 50	
13208	26 "	"	11 x 3 in.	880-----	14 50	
13209	16 "	Oval	11 x 3½ in.	770-----	12 50	
13210	21 "	"	11 x 3½ in.	770-----	13 50	
13211	26 "	"	11 x 3½ in.	935-----	14 50	
13212	13 "	Special Broad,	8 x 6 in.	770-----	11 75	
13213	16 "	"	8 x 6 in.	770-----	12 25	
13214	19 "	"	8 x 6 in.	880-----	13 00	
13215	26 "	"	8 x 6 in.	880-----	14 50	

With Automatic Regulator Stand and Automatic Handle Switch.



					Watts.		
					Min.	Max.	
13216	13 lbs.	Diamond Nose,	9 x 2¾ in	400	660...	15	00
13217	16 "	"	9 x 2¾ in.	400	660...	15	50
13218	19 "	"	9 x 2¾ in.	400	660...	16	25
13219	21 "	"	11 x 3 in.	530	770...	16	75
13220	26 "	"	11 x 3 in.	530	880...	17	75
13221	16 "	Oval	11 x 3½ in.	530	770...	15	75
13222	21 "	"	11 x 3½ in.	530	770...	16	75
13223	26 "	"	11 x 3½ in.	530	935...	17	75
13224	13 "	Special Broad,	8 x 6 in.	530	770...	15	00
13225	16 "	"	8 x 6 in.	530	770...	15	50
13226	19 "	"	8 x 6 in.	530	880...	16	25
13227	26 "	"	8 x 6 in.	530	880...	17	75

ELECTRIC TEA KETTLES.

Made for any Voltage 100 to 240.

The silent electric current quickly supplies the necessary heat without the use of alcohol, matches or flame, and the kettles being removable, leave a convenient ornamental heater for warming wafers or biscuits. The heaters have regulating switches. Finish and workmanship of the best. Highly finished in silver or nickel-plate.



List No. 8010.

List No.		Watts.	Price.
8010	One qt. Nickel-plated. Three heats. Cord, no plug,	440	\$15 00
8011	One qt. Silver " " " " "	440	20 00
8012	One qt. Nickel " " " " "	250	12 85
8013	One qt. Silver " " " " "	250	18 75



List No. 8012.

IMPROVED
ELECTRIC CHAFING DISH.

The cost for operation is less than for alcohol, and the Electric Chafing Dish is free from all the annoying and dangerous features incident to the use of flames. The Chafing Dish is instantly removable from the heater, leaving a handsome electric stove available for toast, tea, and all the many uses to which an electric stove may be applied. All are made of heavy copper, with interiors double tinned, outside of the heaviest nickel or silver-plate as listed. Regulating switches have white enameled handles. All are sent complete with flexible connecting cord, and complete instructions for use.



List No. 8014.

List No.		Watts.	Price.
8014	Two pts. Suitable for one or two. Complete with flexible conductor and plug ready to connect to lamp socket. Has one heat. Nickel-plated.....	250	\$11 00
8015	Two pts. Has three divisions of heat and regulating switch. Nickel-plated.....	250	13 50
8016	Three pts. Standard size. Plain, with flexible conductor. Has one heat. Nickel-plated.....	500	14 00
8017	Three pts. Same as above except that it has three divisions of heat and regulating switch. Nickel-plated.....	500	16 00



List No. 8018.

ELECTRIC PLATE WARMER.
Portable.

This Plate Warmer is designed for use in dining-room or pantry, or for private service in rooms at hotels, cafes, etc. It is made in the most substantial manner of heavy "block tin," with polished brass trimmings; the interior is divided by shelf, and a handle on the top makes it convenient to carry safely when filled. This type is used for private service at the Waldorf-Astoria, on private yachts, etc.

List No.		Watts.	Price.
8018	Portable Plate Warmer, twelve by twelve by twenty in. high.....	300	\$20 00



List No. 8019.

NURSERY MILK WARMER.

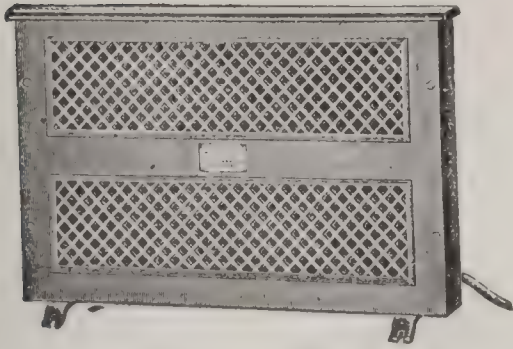
This heater consists of a spun copper, heavily nickeled water receptacle, into which fits an immersion coil heater, surrounding a graduated eight ounce bottle to be used for heating the milk or other liquid. Three minutes is sufficient to raise the temperature of the liquid in the bottle from 60 to 110 degrees Fahrenheit.

List No.		Price.
8019	Milk Warmer, with cord and plug.....	\$6 50

Always specify Voltage when ordering.

ELECTRIC RADIATORS.

Made for any Voltage, 100 to 240.

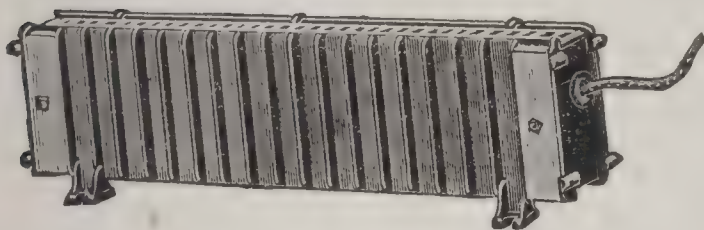


List No. 8072.

heating a given space, though approximate estimates can be made by allowing from one to two watts for each cubic foot of air space to be heated. The latter amount for well constructed buildings in cold weather, or for quickly heating a bath-room. The heaters shown are arranged to give three different adjustments of heat.

Unless electricity is produced at a very low cost it is not commercially practicable to heat residences or large buildings. While this is true, the electric heater still has a wide field of application in heating small offices, bath-rooms, snuggeries, cold corners of rooms, street railway waiting rooms, the summer villa on cool evenings, and in mild climates a still wider range. It has the peculiar advantage of being instantly available, and the amount of heat is regulated at will. The heaters are perfectly clean, do not vitiate the atmosphere, and are portable. No definite rule can be given to determine the amount of electricity necessary for

List No.		Length.	Height.	Width.	Max. Watt Cap'y.	Price.
8072	Gold Bronze Finish....	26 in.	22 in.	2 in.	2,000	\$25 00
8073	" " "	26 in.	22 in.	4 in.	4,000	35 00
8074	" " "	26 in.	22 in.	7 in.	6,000	45 00

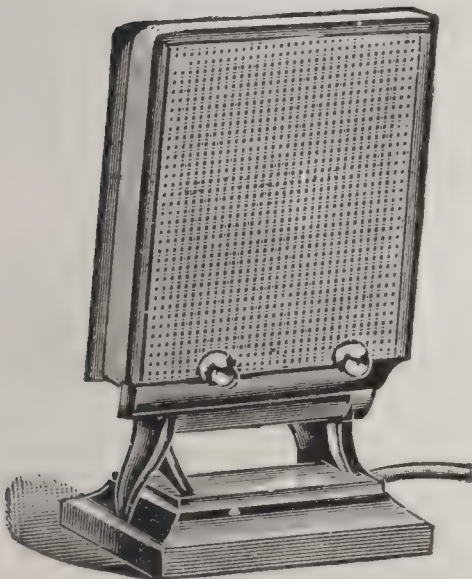


List No. 8075

STATE ROOM RADIATORS.

Gold Bronze Finish.

List No.	Length.	Height.	Thick.	Watts.	Price.
8075	20 in.	6 in.	2 in.	800	\$10 00
8076	30 in.	6 in.	2 in.	1,100	12 00



List No. 8077.

SMALL PORTABLE RADIATORS.

Dull Black Finish.

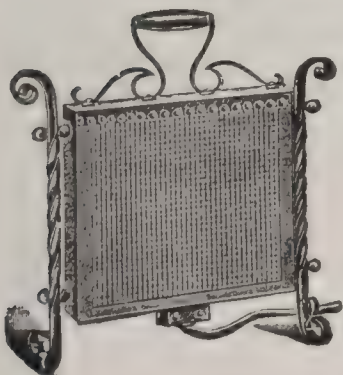
List No.	Watts.	Price.
8077 12 in. high.....	900	\$10 00

SMALL PORTABLE RADIATORS.

Fire Screen Design.

Substantial and Ornamental.

Dull Black Finish.



List No. 8078.

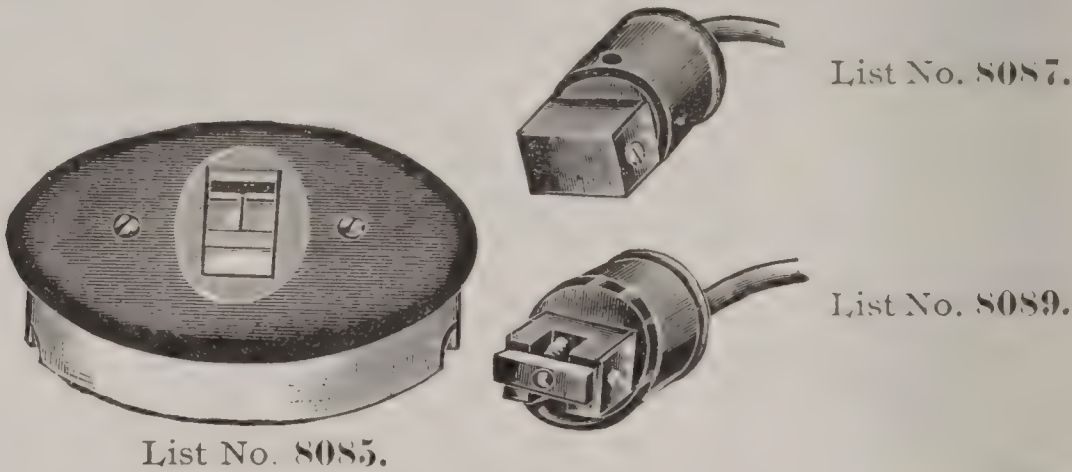
List No.	Watts.	Price.
8078 16 in. high.....	900	\$15 00
8079 20 " "	1,200	20 00

Always specify Voltage when ordering.

PLUG SWITCHES.
FOR ELECTRIC HEATING APPARATUS.

Circuits to 300 Volts.

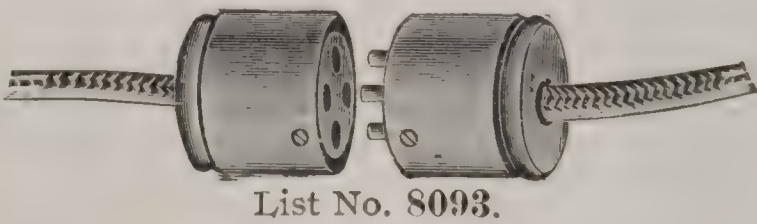
The Plug Switches listed below have the same receptacle, but for different service have different plugs. The No. 8086 is a plain plug and receptacle. No. 8088 has the same receptacle with a three conductor, circuit, changing plug, suitable for two circuit work. By using No. 8085 receptacles in an installation, a one circuit plug, or a two circuit plug may be used as required.



List No.		Price.
8085	Receptacle, double pole cut-out, 20 amperes.....	\$0.90
8086	Plug Switch, " " " 20 "	1.65
8087	Plug, plain, one circuit, for No. 8085.....	.75
8088	Three Heat Plug Switch, 20 amperes.....	2.50
8089	Three Heat Plug for No. 8085.....	1.60

CONNECTORS.

These are separable switches for use with flexible conductors for disconnecting near a heater, and also for changing circuit combinations.



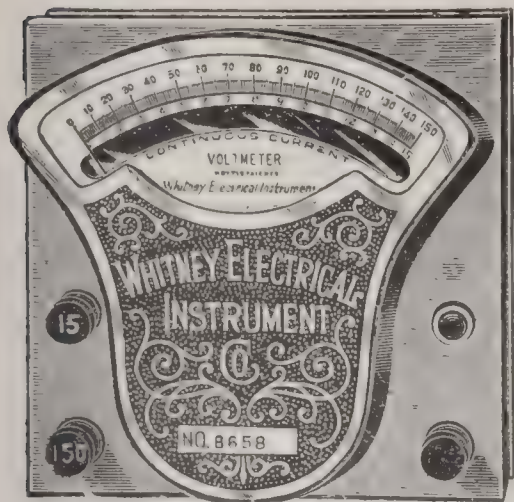
List No.		Price.
8090	Two-way For duplex cord only, three amperes.....	\$1.00
8091	Three-way " three conductors, " "	1.25
8092	Two-way " duplex cord only, twelve "	1.25
8093	Three-way " three conductors, " "	1.50

FLEXIBLE CONDUCTORS.

This Twin Conductor Cord, manufactured under Letters Patent, is specially made for the purpose, and has been passed upon and approved by the Board of Underwriters.

With Water and Fire-proof Insulation.

List No.	Gauge.		Price.
8094	16	Twin Conductor.....per foot,	\$0.12
8095	16	Triple " .....	.18
8096	14	Twin " .....	.14
8097	14	Triple " .....	.21
8098	12	Twin " .....	.16



WHITNEY INSTRUMENTS.

PORTABLE VOLTMETERS AND
AMMETERS FOR DIRECT CURRENT.

Voltmeters are the permanent Magnet Type, very dead beat, and with Scales equally divided throughout their range.

All are provided with Contact Key and may be left continuously in Circuit without heating error.

Ammeters are of the Series Wound Permanent Magnet Type with equal Scale divisions and are magnetically dead beat. They are remarkably light and compact. Shunt Type Portables, with Shunts self-contained or in a separate box, can be furnished of any range and at special prices.

Voltmeters—Direct Current.

List No.	Mfrs. No.	Range 0 to	Scale Division.	Price.
8100	23	3 Volts.	.02 Volts	\$30 00
8101	25	15 "	.1 "	31 00
8102	28	125 "	1 "	37 00
8103	29	150 "	1 "	39 00
8104	31	300 "	2 "	44 00
8105	33	600 "	5 "	55 00
8106	35	750 "	5 "	60 00

Ammeters—Direct Current.

List No.	Mfrs. No.	Range 0 to	Scale Division.	Price.
8107	125	15 Amp.	.1 Amp.	\$39 00
8108	127	25 "	.2 "	39 00
8109	129	50 "	.5 "	39 00
8110	131	100 "	1 "	42 00
8111	133	150 "	1 "	44 00
8112	135	300 "	2 "	49 00
8113	137	400 "	5 "	54 00

When desired we will make any of the above Instruments with the zero in the centre of the Scale without extra charge. In this case the value of each Scale Division is doubled.

PORTABLE H. W. (HOT WIRE) VOLT AND AMMETERS FOR DIRECT
OR ALTERNATING CURRENT.

Voltmeters.

List No.	Mfrs. No.	Range	Price.
13230	801	.5 to 3 Volts in .02 Volts	\$45 00
13231	803	15 " 75 " .5 "	47 50
13232	805	30 " 150 " 1 "	50 00
13233	807	60 " 300 " 2 "	55 00
13234	809	100 " 600 " 5 "	70 00
13235	815	Double Scale Ranges, 5 and 150 Volts	52 50

List No.	Mfrs. No.	Range	Price.
13236	817	Double Scale Ranges, 75 and 150 Volts	\$55 00
13237	819	Double Scale Ranges, 150 and 300 Volts	60 00
13238	821	Double Scale Ranges, 150 and 600 Volts	75 00

Ammeters.

List No.	Mfrs. No.	Range	Price.
13239	853	.1 to 1 Amp. .01 Amp.	\$50 00
13240	855	1 " 10 " .1 "	50 00
13241	857	3 " 25 " .25 "	50 00

List No.	Mfrs. No.	Range	Price.
13242	859	5 to 50 Amp. .5 Amp.	\$51 00
13243	861	10 " 100 " 1 "	52 00
13244	863	20 " 200 " 2 "	53 00

PORTABLE H. W. (HOT WIRE) AMMETERS WITH SEPARATE
SHUNTS FOR DIRECT OR ALTERNATING CURRENTS.

When desired we furnish Ammeters with separate Shunts, and we always supply separate Shunts where the capacity is over 200 Amperes. In this style of instrument, the Shunt Leads are built directly into the Meter itself, thus doing away with two Contacts and making it impossible to lose the Leads.

List No.	Mfrs. No.	Price.
13245	900	Instrument with Leads but without Shunt. \$45 00

Single Range Shunts.

List No.	Mfrs. No.	Capacity, 100 Amperes	Price.
13246	907	" 200 "	\$17 00
13247	909	" 300 "	17 00
13248	911	" 400 "	17 00
13249	913	" 500 "	20 00
13250	915	" 750 "	23 00
13251	917	" 1000 "	24 00
13252	919	" 1000 "	26 00

Combination Shunts.

Two Ranges in one Case.

List No.	Mfrs. No.	Capacities, 5 and 25 Amp.	Price.
13253	951	" 5 " 50 "	\$25 00
13254	953	" 7.5 " 75 "	27 00
13255	955	" 10 " 100 "	28 00
13256	957	" 10 " 100 "	31 00



WHITNEY INSTRUMENTS.

ILLUMINATED DIAL H. W. (HOT WIRE)
VOLT AND AMMETERS FOR DIRECT
OR ALTERNATING CURRENT.

Voltmeters.

All Voltmeters have separate resistances, to be mounted behind the Board.

List No.	Mfrs. No.	Range.	Price.
13260	5003	15 to 75 Volts.....	\$55 00
13261	5005	30 to 150 ".....	55 00
13262	5007	60 to 300 ".....	60 00
13263	5009	100 to 600 ".....	67 50
13264	5011	150 to 750 ".....	70 00
13265	5012	500 to 1400 ".....	75 00
13266	5014	1000 to 3000 ".....	85 00

Ammeters.

Prices include Shunts, which are separate from the Instrument in each Case.

List No.	Mfrs. No.	Range.	Price.	List No.	Mfrs. No.	Range.	Price.
13267	5101	5 to 50 Amperes.....	\$50 00	13271	5111	40 to 400 Amperes.....	\$59 00
13268	5103	10 to 100 ".....	52 50	13272	5113	50 to 500 ".....	60 00
13269	5107	20 to 200 ".....	55 00	13273	5117	75 to 750 ".....	73 00
13270	5109	30 to 300 ".....	58 00	13274	5119	100 to 1000 ".....	76 00

ILLUMINATED DIAL, VOLT AND AMMETERS FOR DIRECT CURRENT.

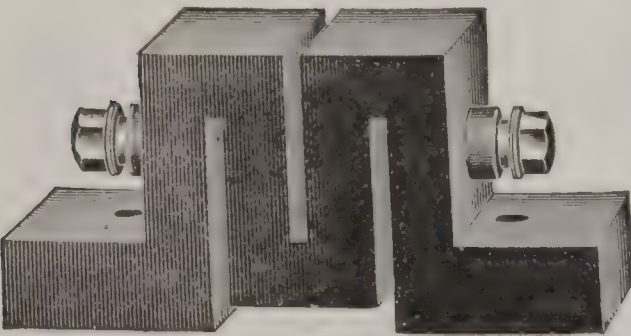
Voltmeters.

List No.	Mfrs. No.	Scale.	Price.	List No.	Mfrs. No.	Scale.	Price.
8275	1001	0 to 15 Volts in tenths.....	\$50 00	8278	1007	0 to 300 Volts in twos.....	\$60 00
8276	1003	0 to 100 " in units.....	55 00	8279	1009	0 to 600 " " fives.....	63 00
8277	1005	0 to 150 " ".....	55 00	8280	1011	0 to 750 " ".....	64 00

Ammeters.

List No.	Mfrs. No.	Scale.	Price.	List No.	Mfrs. No.	Scale.	Price.
8281	1101	0 to 50 Amperes in halves.....	\$50 00	8288	1119	0 to 1000 Amp. in tens.....	\$64 00
8282	1103	0 to 100 " units.....	50 00	8289	1125	0 to 2000 " " twenties.....	72 00
8283	1107	0 to 200 " twos.....	55 00	8290	1126	0 to 3000 " ".....	75 00
8284	1109	0 to 300 " ".....	58 00	8291	1127	0 to 4000 " " fifties.....	78 00
8285	1111	0 to 400 " fives.....	59 00	8292	1128	0 to 5000 " ".....	85 00
8286	1113	0 to 500 " ".....	60 00	8293	1130	0 to 7500 " ".....	100 00
8187	1117	0 to 750 " ".....	62 00	8294	1133	0 to 10000 " " hundreds.....	117 00

The above prices are for the standard finish (Black with Nickel Trimmings). For all Copper or Nickel-Plated add \$4 50.



SHUNTS FOR DIRECT
CURRENT SWITCH-
BOARD INSTRUMENTS.

These Shunts are milled out of one solid piece and thus do away with all possibility of contact troubles. Four times the radiating surface is allowed per Watt dissipated, than employed in the older forms of Shunts, and instead of using a metal whose temperature coefficient is as nearly zero as possible, use

one whose temperature coefficient is half way between zero and the temperature coefficient of Copper, as this gives greater accuracy under commercial variations in temperature of the instrument and shunt.

List No.	Mfrs. No.	Capacity in thousandths in Amp.	Resistance of an Ohm	Price.	List No.	Mfrs. No.	Capacity in thousandths in Amp.	Resistance of an Ohm.	Price.
8313	4501	100	.5.....	\$ 3 00	8320	4513	1500	.3333.....	\$ 17 00
8314	4502	200	.25.....	3 50	8321	4515	2000	.025.....	20 00
8315	4503	300	.167.....	4 00	8322	4517	3000	.0167.....	22 50
8316	4505	400	.125.....	5 00	8323	4519	4000	.0125.....	35 00
8317	4507	500	.1.....	6 50	8324	4521	5000	.01.....	52 00
8318	4509	750	.0833.....	9 50	8325	4523	7500	.00667.....	75 00
8319	4511	1000	.05.....	11 50	8326	4525	10000	.005.....	100 00

The above can be used with direct current "Illuminated Dial" Ammeters, "Standard" Round Pattern type Ammeters and "I. P." type Ammeters.

WHITNEY INSTRUMENTS.



STANDARD DIRECT CURRENT ROUND PATTERN VOLTMETERS AND AMMETERS.

Case diameter, 8 inches.

Diameter of Base Flange, 9½ inches.

These Instruments contain exactly the same type of movement as those on the preceding page, and possess the same features, with the exception of the Dial Illumination, which is absent in this pattern.

Prices are for the standard finish (Black with Nickel Trimmings). For all Copper or Nickel-Plated add \$2.00.

Voltmeters.

List No.	Mfrs. No.	Range Volts.	Price.
8330	1425	0 to 15 in fifths....	\$24 00
8331	1428	0 to 125 in units	27 00
8332	1429	0 to 150 in twos	27 00
8333	1431	0 to 300 in 2.5's.....	30 00
8334	1433	0 to 600 in fives.....	34 00
8335	1435	0 to 750 in tens.....	36 00

Ammeters.

In Instruments under one-hundred Amperes capacity the whole current must be passed through the Meter. For larger sizes separate Shunts are furnished.

List No.	Mfrs. No.	Scale Amperes.	Price.	List No.	Mfrs. No.	Scale Amperes.	Price.
8336	1525	0 to 10 in tenths.....	\$23 00	8342	1539	0 to 400 in fives.....	\$29 00
8337	1527	0 to 25 in fifths.....	24 00	8343	1541	0 to 500 in fives.....	29 00
8338	1529	0 to 50 in halves.....	24 00	8344	1545	0 to 750 in tens.....	31 50
8339	1531	0 to 100 in units	25 00	8345	1547	0 to 1000 in tens.....	32 50
8340	1535	0 to 200 in twos.....	26 00	8346	1555	0 to 2000 in twenties	40 00
8341	1537	0 to 300 in 2 5's	28 00	8347	1557	0 to 3000 in twenty-fives....	43 00

ROUND PATTERN H. W. (HOT WIRE) TYPE INSTRUMENTS FOR DIRECT OR ALTERNATING CURRENT.

These Instruments contain exactly the same type of movement as those in the Hot Wire Instruments before described, and possess the same features except that the Scales are shorter and the Dials are not illuminated, all Voltmeters have separate resistances, to be mounted behind the Board.

Voltmeters.

List No.	Mfrs. No.	Range.	Price.
13275	6003	15 to 75 Volts.....	\$27 50
13276	6005	30 to 150 ".....	30 00
13277	6007	60 to 300 ".....	32 50
13278	6009	100 to 600 ".....	37 50
13279	6011	150 to 750 ".....	40 00

Ammeters.

Prices include Shunts, which are separate from the instrument in each Case.

List No.	Mfrs. No.	Range.	Price.
13280	6101	5 to 50 Amperes.....	\$29 00
13281	6103	10 to 100 ".....	30 00
13282	6107	20 to 200 ".....	33 00
13283	6109	30 to 300 ".....	35 00
13284	6111	40 to 400 ".....	38 00
13285	6113	50 to 500 ".....	42 00
13286	6117	75 to 750 ".....	44 00
13287	6119	100 to 1000 ".....	46 00

WHITNEY INSTRUMENTS.

WHITNEY "I. P." TYPE VOLTMETERS AND AMMETERS FOR DIRECT CURRENT.



Case diameter, 6 inches.

Diameter of Base Flange, 7½ inches.

These Meters contain the same type of movements used in all of our other direct current Instruments, but on a smaller scale. The Cases are of heavy Brass with Cast; turned and polished Brass Bases, or when requested will finish dead black without extra charge.

Voltmeters—Direct Current.

List No.	Mfrs. No.	Range Volts.	Price.
8375	1725	0 to 15 in fifths	\$15 50
8376	1727	0 to 100 in units	16 00
8377	1729	0 to 150 in twos	16 50
8378	1731	0 to 300 in 2.5's	18 00

Ammeters—Direct Current.

In Instruments under 100 Amperes capacity the Shunts are self-contained and the whole current must be passed through the meter. In capacities of 100 Amperes and over the Shunts are separate.

List No.	Mfrs. No.	Range Amperes.	Price.
8379	1825	0 to 10 in tenths	\$15 50
8380	1827	0 to 25 in fifths	16 00
8381	1829	0 to 50 in halves	16 50

List No.	Mfrs. No.	Range Amperes.	Price.
8382	1830	0 to 75 in units	\$17 00
8383	1831	0 to 100 in units	17 50
8384	1835	0 to 200 in twos	18 00
8385	1837	0 to 300 in 2.5's	18 50
8386	1839	0 to 400 in fives	19 50
8387	1841	0 to 500 in fives	21 00

Higher ranges to order.

HOT WIRE I. P. (ISOLATED PLANT) TYPE INSTRUMENTS FOR DIRECT OR ALTERNATING CURRENT.

This line is same style and size of Case as the one on the upper part of page, it contains the regular movement same as used in the other Hot Wire Instruments, with the exception of the fact that the Aluminum Disk and Drag Magnet for additional damping purposes are omitted. In all cases the Voltmeter Multipliers are separate and designed to be secured to the rear of the Board.

Voltmeters.

List No.	Mfrs. No.	Range.	Price.
13290	7003	15 to 75 Volts	\$16 00
13291	7005	30 to 150 Volts	16 50
13292	7007	60 to 300 Volts	18 00

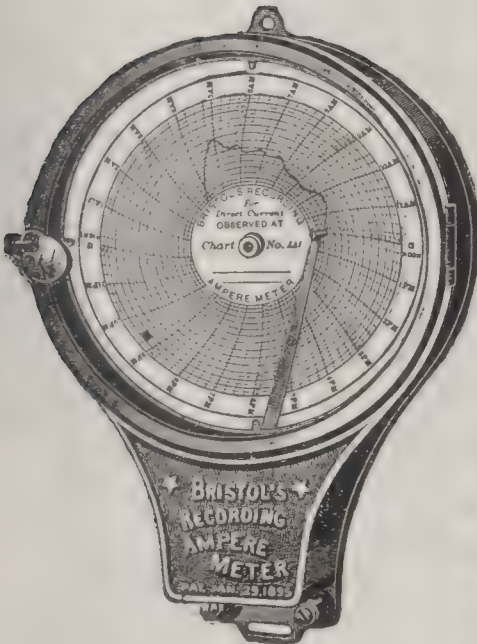
Ammeters.

13293	7100	3 to 25 Amperes	16 00
13294	7101	5 to 50 Amperes	16 50
13295	7102	10 to 75 Amperes	17 00
13296	7103	10 to 100 Amperes	17 50
13297	7107	20 to 200 Amperes	18 00
18298	7109	30 to 300 Amperes	18 50

Prices include Shunts. Other ranges to order.

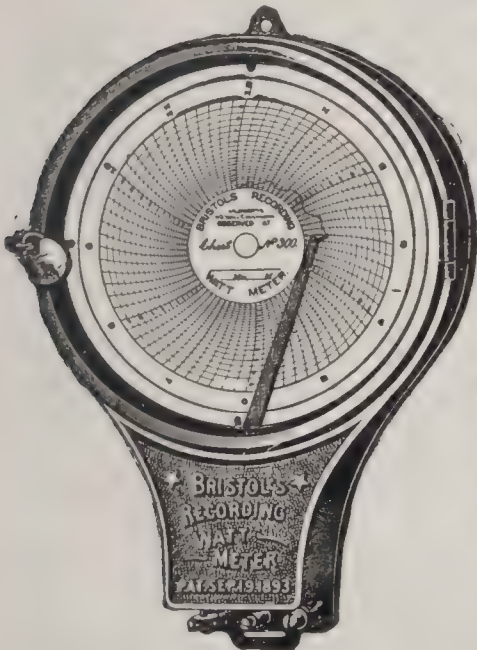
BRISTOL'S RECORDING INSTRUMENTS.

BRISTOL'S RECORDING AMPEREMETER FOR DIRECT CURRENT.
Nearly Uniform Graduations.



List No.	Mfrs. No.	Working Range.	Total Scale.	One Revolution of Chart.	Price.
13300	4000	1 to 6 Amp.	0 to 7 Amp.	24 hours	\$ 60 00
13301	4001	2 to 9 "	0 to 10 "	24 "	60 00
13302	4002	2 to 9 "	0 to 10 "	6 "	60 00
13303	4003	2 to 9 "	0 to 10 "	1/4 "	60 00
13304	4004	2 to 13 "	0 to 15 "	24 "	60 00
13305	4005	5 to 27 "	0 to 30 "	24 "	60 00
13306	4038	10 to 55 "	0 to 60 "	24 "	60 00
13307	4007	10 to 55 "	0 to 60 "	6 "	60 00
13308	4008	25 to 110 "	0 to 125 "	24 "	70 00
13309	4009	25 to 110 "	0 to 125 "	6 "	70 00
13310	4059	25 to 135 "	0 to 150 "	24 "	70 00
13311	4011	30 to 165 "	0 to 180 "	24 "	70 00
13312	4040	30 to 180 "	0 to 200 "	24 "	70 00
13313	4044	50 to 270 "	0 to 300 "	24 "	80 00
13314	4015	50 to 270 "	0 to 300 "	12 "	80 00
13315	4046	50 to 400 "	0 to 450 "	7 days	80 00
13316	4020	100 to 550 "	0 to 600 "	24 hours	80 00
13317	4032	100 to 550 "	0 to 600 "	12 "	80 00
13318	4053	100 to 700 "	0 to 800 "	24 "	80 00
13319	4021	100 to 700 "	0 to 800 "	12 "	80 00
13320	4052	150 to 1100 "	0 to 1200 "	24 "	80 00
13321	4031	200 to 1100 "	0 to 1200 "	12 "	80 00
13322	4024	200 to 1500 "	0 to 1600 "	24 "	90 00
13323	4025	200 to 1500 "	0 to 1600 "	12 "	90 00
13324	4055	250 to 2200 "	0 to 2500 "	24 "	90 00
13325	4056	500 to 3200 "	0 to 3500 "	24 "	100 00
13326	4030	1000 to 4500 "	0 to 5000 "	24 "	150 00
13327	4035	1000 to 4500 "	0 to 5000 "	12 "	150 00
13328	4058	1000 to 5000 "	0 to 5500 "	24 "	150 00

BRISTOL'S RECORDING WATTMETERS FOR DIRECT CURRENT.
Nearly Uniform Graduations.



List No.	Mfrs. No.	Max Voltage.	Max. Current	Total Scale.	One Revolution of Chart.	Price.
13329	3000	125 Volts.	48 Amp.	0 to 6 K.W.	24 hours	\$ 70 00
13330	3001	125 "	48 "	0 to 6 "	12 "	70 00
13331	3002	125 "	120 "	0 to 15 "	12 "	80 00
13332	3003	125 "	145 "	0 to 18 "	24 "	80 00
13333	3004	125 "	240 "	0 to 30 "	24 "	90 00
13334	3039	125 "	600 "	0 to 75 "	24 "	100 00
13335	3039	125 "	600 "	0 to 75 "	12 "	100 00
13336	3057	125 "	1200 "	0 to 150 "	24 "	100 00
13337	3063	125 "	2400 "	0 to 300 "	24 "	110 00
13338	3010	150 "	1200 "	0 to 180 "	12 "	100 00
13339	3018	250 "	300 "	0 to 75 "	12 "	90 00
13340	3058	250 "	600 "	0 to 150 "	24 "	100 00
13341	3041	500 "	30 "	0 to 15 "	24 "	70 00
13342	3042	500 "	30 "	0 to 15 "	12 "	70 00
13343	3059	500 "	300 "	0 to 150 "	24 "	90 00
13344	3065	500 "	600 "	0 to 300 "	24 "	100 00
13345	3061	500 "	1200 "	0 to 600 "	24 "	100 00

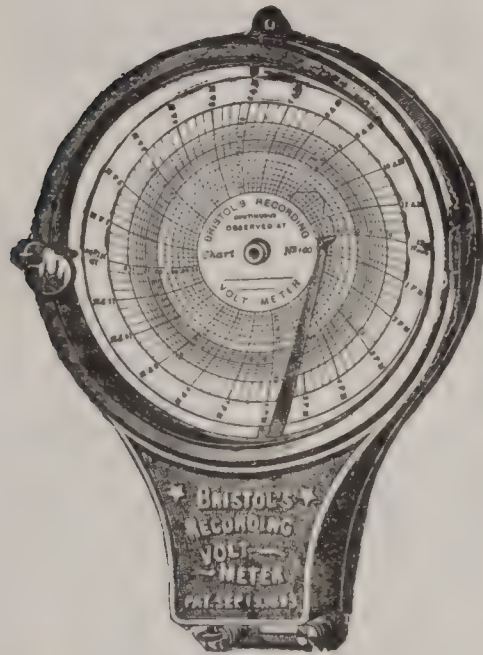
Prices on Bristol's Recording Wattmeters for alternating current furnished upon application.

Bristol's Damping Device should be ordered for Recording Amperemeters and Wattmeters for all places where current fluctuates rapidly over wide ranges, as on power circuits, etc.

SUPPLIES AND EXTRAS.

List No.		Price,
13602	Damping Device	\$10 00
13603	Aluminum Case, reducing weight one half	16 00
13604	Carrying Case, Single Compartment	12 00
13605	Carrying Case, Double Compartment	14 00
13606	Special Chart, made to order	30 00
13607	Additional Charts (one color), per 100	1 50
13608	Special Recording Instrument Ink, per bottle, 1 oz.	50

BRISTOL'S RECORDING INSTRUMENTS.



BRISTOL'S RECORDING VOLTMETER FOR ALTERNATING CURRENT.
Increasing Graduations.

List No.	Mfrs. No.	Working Scale.	Total Scale.	One Revolution of Chart.	Price.
13348	15201	20 to 65 Volts.	0 to 70 Volts.	24 hrs.	\$60 00
13349	15202	20 to 65 "	0 to 70 "	1 "	60 00
13350	15238	40 to 120 "	0 to 130 "	24 "	60 00
13351	15205	40 to 120 "	0 to 130 "	12 "	60 00
13352	15256	40 to 140 "	0 to 150 "	24 "	60 00
13353	15207	50 to 230 "	0 to 250 "	24 "	60 00
13354	15208	75 to 250 "	0 to 275 "	24 "	60 00
13355	15210	100 to 260 "	0 to 280 "	1 "	60 00
13356	15213	100 to 275 "	0 to 300 "	12 "	60 00
13357	15216	100 to 450 "	0 to 500 "	24 "	60 00
13358	15222	200 to 550 "	0 to 600 "	12 "	60 00
13359	15255	200 to 600 "	0 to 700 "	12 "	60 00
13360	15219	300 to 720 "	0 to 800 "	24 "	65 00

BRISTOL'S RECORDING VOLTMETER FOR DIRECT CURRENT.
Increasing Graduations.

List No.	Mfrs. No.	Working Range.	Total Scale.	One Revolution of Chart.	Price.
13361	15000	6 to 25 Volts.	0 to 27 Volts.	24 hours	\$60 00
13362	15001	20 to 55 "	0 to 60 "	24 "	60 00
13363	15042	40 to 120 "	0 to 130 "	12 "	60 00
13364	15040	40 to 130 "	0 to 140 "	24 "	60 00
13365	15047	50 to 210 "	0 to 230 "	24 "	60 00
13366	15009	75 to 275 "	0 to 300 "	24 "	60 00
13367	15008	100 to 275 "	0 to 300 "	12 "	60 00
13368	15011	200 to 550 "	0 to 600 "	24 "	60 00
13369	15012	200 to 550 "	0 to 600 "	12 "	60 00
13370	15014	300 to 720 "	0 to 800 "	24 "	65 00
13371	15015	600 to 2200 "	0 to 2350 "	12 "	75 00
13372	15054	1000 to 4000 "	0 to 4500 "	24 "	85 00

Nearly Uniform Graduations.

13373	15016	1 to 5 Volts.	0 to 6 Volts.	24 hours	60 00
13374	15026	30 to 120 "	0 to 130 "	24 "	60 00

Uniform Graduations.

13375	15019	100 to 130 Volts.	100 to 135 Volts.	24 hours	65 00
13376	15051	90 to 130 "	90 to 140 "	24 "	65 00

Special for Shipboard.

13377	15021	30 to 120 Volts.	0 to 130 Volts.	24 hours	65 00
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For Both + and - Current.

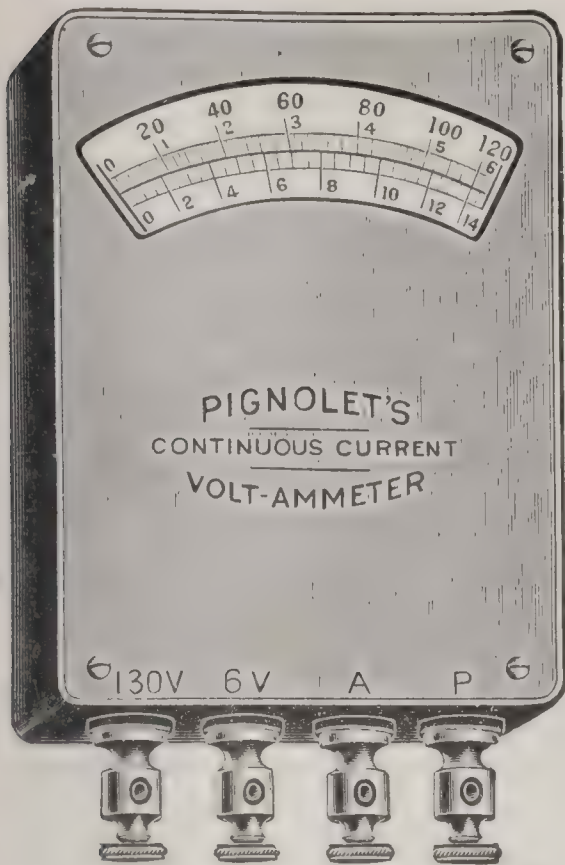
13378	15022	- 4 to +4 Volts.	-5 to +5 Volts.	24 hours	65 00
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BRISTOL'S RECORDING AMPEREMETERS FOR ALTERNATING CURRENTS.

Nearly Uniform Graduations.

List No.	Mfrs. No.	Working Range.	Total Scale.	One Revolution of Chart.	Price.
13379	4200	2 to 9 Amperes.	0 to 10 Amperes.	24 hours	\$60 00
13380	4201	2 to 9 "	0 to 10 "	12 "	60 00
13381	4202	5 to 22 "	0 to 25 "	24 "	60 00
13382	4205	10 to 55 "	0 to 60 "	24 "	60 00
13383	4206	20 to 90 "	0 to 100 "	24 "	70 00
13384	4223	25 to 110 "	0 to 125 "	24 "	70 00
13385	4259	25 to 135 "	0 to 150 "	24 "	70 00
13386	4209	30 to 180 "	0 to 200 "	24 "	70 00
13387	4210	50 to 270 "	0 to 300 "	24 "	80 00

Instruments are finished in Nickel Plate. Special finishes to order. Above prices include with each instrument: Padlock and Key, one hundred Charts and a bottle of Special Recording Instrument Ink.



Half Actual Size.

PIGNOLET'S VOLT-METERS AND AMMETERS.

For Direct Current Only.

These Instruments are of the permanent magnet type and have the high accuracy and equal scale divisions of this type. They are large enough for practical use and reliability, though small enough to be carried in the pocket.

Each is calibrated individually for horizontal position and its scale made by hand. A Mirror is provided to secure accuracy in making readings. The Magnets are of special steel from one of the best foreign makers, and are carefully treated to insure permanency. The Instruments are constructed in the same thorough manner as a large portable Instrument. They have Jewel Bearings and carefully ground and hardened steel Pivots; no pains being spared to make the Instruments durable and reliable.

The Voltmeters have a wide range of usefulness, for each Instrument can be used either as a Voltmeter or as an Ammeter.

The Dead Beat Attachment is operated by turning a Button on the Cover of the Instrument and sets the Pointer a little below the reading to be made so that it has but a short distance to move when the current is turned on. The pointers come to rest quickly, so that ordinarily the attachment is not needed. It is advantageous where many similar measurements are to be made, as in testing a number of Storage or Dry Cells.

List No.

Voltmeters.

Price.

8606	0 to 5 Volts, tenth Volt Division	\$12 00
8607	0 to 10 " fifth " "	12 00
8608	0 to 20 " half " "	12 00
8609	0 to 50 " single " "	13 00
8610	0 to 100 " two " "	13 00
8611	0 to 130 " two " "	14 00
8626	0 to 260 " five " "	15 00

Double Reading Voltmeters.

8612	0 to 5 Volts and 0 to 25 Volts	16 00
8613	0 to 50 " 0 to 100 "	16 00
8614	0 to 6½ " in tenths and 0 to 130 Volts	17 00

Storage Battery Voltmeter.

8615	0 to 3 Volts, twentieth Volt Divisions, with Dead Beat Attachment	12 50
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Ammeters.

8616	0 to 1 Amperes, .02 Ampere Divisions	12 00
8617	0 to 4 " tenth " "	12 00
8618	0 to 10 " fourth " "	12 00
8619	0 to 15 " half " "	12 00
8620	0 to 30 " single " " not for continuous use	12 00
8627	0 to 50 " single " "	13 00

Voltammeters.

8621	0 to 5 Volts and 0 to 1, 4, 10, 15 or 30 Amperes	15 00
8622	0 to 10 " 0 to 1, 4, 10, 15 or 30 "	15 00
8623	0 to 20 " 0 to 1, 4, 10, 15 or 30 "	15 00
8624	0 to 50 " 0 to 1, 4, 10, 15 or 30 "	16 00
8628	0 to 100 " 0 to 1, 4, 10, 15 or 30 "	16 00
8625	0 to 130 " 0 to 1, 4, 10, 15 or 30 "	17 00
8629	0 to 260 " 0 to 1, 4, 10, 15 or 30 "	18 00

Three-Reading Voltammeters.

8637	0 to 5 Volts and 0 to 25 Volts and 0 to 30 Amperes	19 00
8638	0 to 5 " 0 to 50 " 0 to 30 "	19 00
8639	0 to 6½ " 0 to 130 " 0 to 30 "	20 00
	Leather Case, extra	1 00
	Dead Beat Attachment, fitted to any Instrument, extra	1 00

Finish is Nickel Plate.

PIGNOLET ROUND
PATTERN VOLTMETERS
AND AMMETERS.



These Instruments are of the Permanent Magnet Type and have a diameter of five and one-half inches and a thickness of two inches, a fine instrument for small boards.

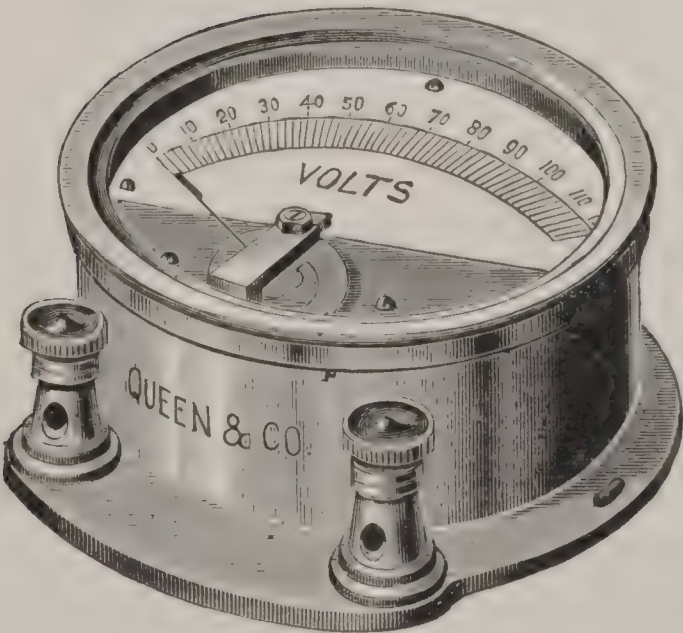
They are made back connection and are fastened to the board by two Bolts which also serve as connections for the current.

These Instruments are made in a thorough manner electrically and mechanically, and are guaranteed against defects.

They are finished in Black Japan with an ornamental Border and present a handsome appearance.

List No.	Voltmeters.	Price.
13398	0 to 140 Volts in two Volt Scale Divisions, between 80 and 140 Volts	\$13 00

Ammeters.						
13399	0 to 5 Amperes in	.01	Ampere	Divisions.....		13 00
13400	0 to 10	"	"	.02	"	13 00
13401	0 to 20	"	"	.05	"	13 00
13402	0 to 30	"	"	1	"	13 00
13403	0 to 40	"	"	1	"	13 00



QUEEN AMAGNETIC
VOLTMETERS AND
AMMETERS FOR
DIRECT CURRENT.

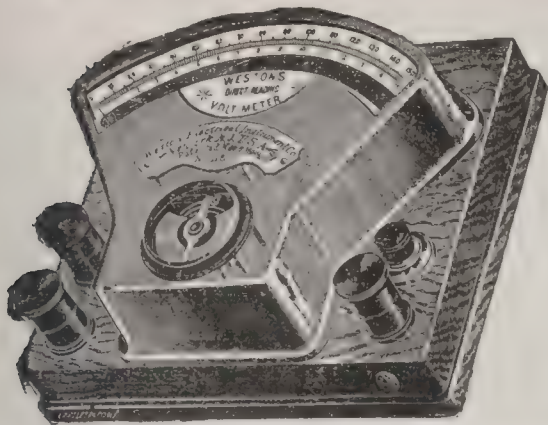
Meters of this style are recommended for use on small Switch Boards where a neat effect as well as accurate indications are essential.

The polished Nickel Case with open Glass Front has a diameter of four inches and a depth of three inches, making it compact, yet easily read, the scale being much longer than in ordinary Switch Instruments. Divisions practically uniform. Ammeters have self-contained Shunts. All Instruments front connection.

Voltmeters.				
List No.				Price.
13405	0 to 1 Volt in	.02	Volt Div...	\$18 00
13406	0 to 3	"	"	18 00
13407	0 to 10	"	"	18 00
13408	0 to 25	"	"	18 00
13409	0 to 50	"	"	20 00
13410	0 to 120	"	"	20 00
13411	0 to 150	"	"	20 00
13412	0 to 250	"	"	22 00

Ammeters.				
List No.				Price.
13413	0 to 1 Amp. in	.02	Amp. Div...	\$18 00
13414	0 to 2	"	"	18 00
13415	0 to 5	"	"	18 00
13416	0 to 15	"	"	18 00
13417	0 to 20	"	"	20 00
13418	0 to 25	"	"	20 00
13419	0 to 35	"	"	20 00
13420	0 to 50	"	"	20 00

WESTON STANDARD PORTABLE DIRECT READING VOLTMETERS.



For Direct Current.

The following is a list of the standard Voltmeters kept in stock. Calibrating coils and contact keys are attached to instruments only when so stated. The scales for these instruments are of uniform length, and are divided into 120 or 150 parts, the value of each division being the proportional part of the maximum scale value.

Instruments provided with contact key can be kept permanently in circuit by depressing the key and giving it a quarter turn. All instruments are provided with rubber-covered binding posts.

List No.	W No.	Range in Volts	No. of Scale Divisions	Value of Each Scale Division in Volts	Readable to	Attachments	Price
3360	(1)	150	150	1	$\frac{1}{10}$ of a volt	Contact key	\$55 00
3361	(2)	150	150	1	$\frac{1}{10}$ " "	Calibrating coil	60 00
3362	(3)	150	150	1	$\frac{1}{10}$ " "	Contact key	75 00
3358	(3½)	5	150	$\frac{1}{30}$ " "	$\frac{1}{300}$ " "	Contact key	75 00
3363	(4)	150	150	1	$\frac{1}{10}$ " "	Contact key	75 00
3359	(4½)	3	150	$\frac{1}{30}$ " "	$\frac{1}{300}$ " "	Contact key	75 00
3364	(5)	15	150	1	$\frac{1}{10}$ " "	Contact key	75 00
3365	(6)	150	150	1	$\frac{1}{10}$ " "	Contact key	75 00
3366	(7)	300	150	2	$\frac{1}{5}$ " "	Contact key	77 50
3367	(8)	150	150	1	$\frac{1}{10}$ " "	Contact key	77 50
3368	(9)	300	150	2	$\frac{1}{5}$ " "	Contact key	65 00
3369	(10)	450	150	3	$\frac{1}{3}$ " "	Calibrating coil	70 00
3370	(11)	600	120	5	$\frac{1}{2}$ " "	Contact key	65 00
3382	(12)	600	120	5	$\frac{1}{2}$ " "	Contact key	70 00
3383	(13)	600	120	5	$\frac{1}{2}$ " "	Calibrating coil	70 00
3371	(14)	600	150	4	$\frac{1}{3}$ " "	Contact key	80 00
3372	(15)	150	150	1	$\frac{1}{10}$ " "	Contact key	80 00
3373	(16)	750	150	5	$\frac{1}{2}$ " "	Contact key	80 00
3374	(17)	150	150	1	$\frac{1}{10}$ " "	Contact key	80 00
3375	(18)	300	150	2	$\frac{1}{5}$ " "	Contact key	80 00
3376	(19)	600	150	4	$\frac{1}{3}$ " "	Contact key	80 00
3377	(20)	750	150	5	$\frac{1}{2}$ " "	Contact key	80 00
3378	(21)	1500	150	10	1 Volt	Contact key	80 00
3379	(22)	1500	150	10	1 Volt	Contact key	80 00



WESTON'S STANDARD PORTABLE
DIRECT READING AMMETERS

For Direct Current.

Our portable ammeters have self-contained copper shunts. The scale reads directly in amperes. These instruments are extremely compact and will be found very serviceable for rapid work.

List No.	Amperes 0 to	No. of Scale Divisions	Value of Scale Divisions	Readable to	Price
3371	5	100	$\frac{1}{20}$ ampere	$\frac{1}{200}$ ampere	\$65 00
3372	15	150	$\frac{1}{10}$ " "	$\frac{1}{100}$ " "	65 00
3373	25	100	$\frac{1}{4}$ " "	$\frac{1}{40}$ " "	65 00
3374	50	100	$\frac{1}{2}$ " "	$\frac{1}{20}$ " "	65 00
3375	100	100	1 " "	$\frac{1}{10}$ " "	70 00
3376	150	150	1 " "	$\frac{1}{10}$ " "	75 00
3377	200	100	2 " "	$\frac{1}{5}$ " "	80 00
3378	250	125	2 " "	$\frac{1}{5}$ " "	80 00
3379	300	150	2 " "	$\frac{1}{5}$ " "	80 00
3380	400	80	5 " "	$\frac{1}{2}$ " "	90 00
3381	500	100	5 " "	$\frac{1}{2}$ " "	90 00

WESTON PORTABLE MODEL E VOLTMETERS AND AMMETERS.

For Direct Current.



These instruments are designed to meet the demand for a low-priced volt or ammeter of sufficient accuracy for station work and general testing. The movement in this type of instrument is completely enclosed in an iron case (which protects it from stray magnetic fields), securely fastened in a wooden carrying box. This box is provided with a hinged cover which protects the scale and binding-posts. Ammeters, having a maximum range of 25 amperes, or less, are provided with self-contained shunts. Higher ranges are adjusted to external station type shunts.

VOLTMETERS.

Double-scale voltmeters in this type will be furnished, when desired, at the price of \$5.00 additional to the list price for the highest range.

List No.	Volts 0 to	Scale Division	Price.
8125	3	.02 Volt	\$25 00
8126	5	.05 "	25 00
8127	15	.1 "	25 00
8128	150	1 "	29 50
8129	300	2 "	32 50
8130	600	5 "	35 00
8131	750	5 "	37 00

AMMETERS.

These instruments consist of milli-voltmeters adjusted with external station type shunts to read direct in amperes for all ranges above 25 amperes.

List No.	Amperes 0 to	Scale Division	Price.
8132	5	.05 Amp.	\$25 00
8133	15	.1 "	25 00
8134	25	.2 "	25 00
8135	50	.5 "	25 50
8136	100	1 "	26 50
8137	150	1 "	27 00
8138	200	2 "	28 00
8139	250	2 "	28 25
8140	300	2 "	28 25
8141	400	5 "	28 50
8142	500	5 "	29 50

WESTON PORTABLE DUPLEX INSTRUMENTS.

These duplex instruments consist of a voltmeter and an ammeter combined in one case. In many cases where practically simultaneous readings of current and potential are to be made they will be found more convenient on account of the proximity of the scales and indices; they have the decided advantage of being more portable than two separate instruments of the same capacity. These instruments are regularly supplied with a single-range voltmeter and a single-range ammeter; they will be supplied, however, with either two voltmeter movements or two ammeter movements of like or different ranges, if so desired.

If the voltmeter is desired with a double range, add \$3.00 to the list price for higher range.

State range in Volts when ordering.



PRICE LIST. Portable Duplex Instrument, Model G.

List No.	Ranges in Amperes	Ranges in Volts 0 to					
		75	150	300	450	600	750
8145	5	\$45 00	\$47 50	\$50 00	\$52 50	\$55 00	\$60 00
8146	15	45 00	47 50	50 00	52 50	55 00	60 00
8147	25	45 00	47 50	50 00	52 50	55 00	60 00
8148	50	45 00	47 50	50 00	52 50	55 00	60 00
8149	100	45 00	47 50	50 00	52 50	55 00	60 00
8150	150	45 00	47 50	50 00	52 50	55 00	60 00
8151	200	48 00	50 50	53 00	55 50	58 00	63 00
8152	250	48 00	50 50	53 00	55 50	58 00	63 00
8153	300	48 25	50 75	53 25	55 75	58 25	63 25
8154	400	48 50	51 00	53 50	56 00	58 50	63 50
8155	500	49 00	55 50	54 50	57 00	59 50	64 50

WESTON ILLUMINATED-DIAL STATION
STANDARD VOLTMETERS AND AMMETERS.

For Direct Current.



The construction of these instruments is of the highest possible standard. They have two indices. One of these is the "Indicating Index," and has a fine point for close readings, with a blackened aluminum disc, which, in conjunction with the other index, termed the "Normal Index," enables even a slight deviation from the normal voltage to be seen from a long distance. The "Normal Index" is inside the case and terminates in a circular disc of blackened aluminum. The disc is adjusted from the outside of the case by hand, by means of the knurled knob seen on the front of the case, so that it is directly below the point of normal voltage. When the indicating index reaches the point of normal voltage, the disc of the normal index appears in the centre of the circular opening of the indicating index, a narrow ring of white being visible, encircling the disc of the normal index. By this simple arrangement, a very small change in the voltage can be seen at a long distance from the instrument.

Prices for higher range volt and ammeters on application.
Prices are for finish, dead black japan with nickel trimmings. For finish, all nickel-plated, add \$2.50.
In placing order please give style of lamp socket desired.

VOLTMETERS.				AMMETERS (WITH SHUNTS).			
List No.	Volts 0 to	Scale Division	Price.	List No.	Amperes 0 to	Scale Division	Price.
8160	85	1 Volt.....	\$55 00	8170	200	2 Amp.....	\$79 50
8161	100	1 "	56 00	8171	250	2 "	79 50
8162	125	1 "	58 00	8172	300	2 "	79 75
8163	135	1 "	60 00	8173	400	5 "	80 00
8164	150	1 "	62 00	8174	500	5 "	81 00
8165	250	2 "	64 00	8175	600	5 "	82 00
8166	300	2 "	66 00	8176	750	5 "	83 00
				8177	1000	10 "	84 00
				8178	1200	10 "	85 00
				8179	1500	10 "	90 75
				8180	2000	20 "	95 25

WESTON ILLUMINATED-DIAL STATION MEDIUM SIZE AMMETERS
AND VOLTMETERS.

For Direct Current.

These instruments are similar in appearance, and are in every respect equal to the standard type, as regards construction and accuracy. They are, however, of smaller dimensions, and are designed for use in plants where an illuminated-dial instrument is desired, but space is limited. The length of the scale in this type is about two-thirds of that used in the standard. Owing to reduced dimensions the subdivisions on the scale are close together, and require close inspection when exact readings are necessary. The instrument is, therefore, not recommended if it must be placed in a position remote from the observer.

VOLTMETERS.				AMMETERS (WITH SHUNTS).			
List No.	Volts 0 to	Scale Division	Price.	List No.	Volts 0 to	Scale Division	Price.
8185	85	1 Volt...	\$55 00	8189	150	1 Volt.....	62 00
8186	100	1 "	56 00	8190	250	2 "	64 00
8187	125	1 "	58 00	8191	300	2 "	66 00
8188	135	1 "	60 00				

AMMETERS (WITH SHUNTS).				AMMETERS (WITH SHUNTS).			
List No.	Range in Amperes	Scale Division	Price.	List No.	Range in Amperes	Scale Division	Price.
8192	200	2 Amp....	\$59 50	8198	750	5 Amp.....	\$63 00
8193	250	2 "	59 50	8199	1000	10 "	64 00
8194	300	2 "	59 75	8200	1200	10 "	65 00
8195	400	5 "	60 00	8201	1500	10 "	70 75
8196	500	5 "	61 00	8202	2000	20 "	75 25
8197	600	5 "	62 00	8203	2500	20 "	76 75

WESTON STATION VOLTMETERS AND
AMMETERS.

For Direct Current.

These instruments are expressly designed for switchboards. They have two indices, the second one, known as the "Normal Index," is adjustable to the normal voltage from the outside of the case by means of a knurled knob. The use of this normal index makes it possible to detect a very slight change in voltage at a considerable distance from the instrument.

They are made in three patterns. Regular, for front of board connection, as shown by illustration. Back connection, in which the binding-posts are carried through to the rear of the switchboard. Flush type, in which a flange is provided for the front, allowing the entire body of the instrument to pass through for connection in the rear of the switchboard.

When ordering, specify the style desired.



Model F.

The divided part of the scale is 6½ inches long and shows an almost absolute proportionality. Prices are for No. 2 finish, dead black japan with nickel trimmings. For No. 3 finish, all nickel-plated, add \$2.00 list.

VOLTMETERS.

List No.	Volts 0 to	Scale Division	Price.	List No.	Volts 0 to	Scale Division	Price.
3390	3	.02 Volt	\$25 00	3396	125	1 Volt.	\$28 25
3391	6	.05 "	25 00	3397	150	1 "	29 50
3392	15	.1 "	25 00	3398	250	2 "	31 50
3393	25	.2 "	26 00	3399	300	2 "	32 50
3394	50	.5 "	26 50	3400	600	5 "	35 00
3395	75	.5 "	27 25	3401	750	5 "	37 00

AMMETERS.

List No.	Amperes 0 to	Scale Division	Price.	List No.	Amperes 0 to	Scale Division	Price.
3402	1	.01 Amp.	\$25 00	3413	300	2 Amp.	\$28 25
3403	5	.05 "	25 00	3414	400	5 "	28 50
3404	10	.1 "	25 00	3415	500	5 "	29 50
3405	15	.1 "	25 00	3416	600	5 "	30 50
3406	25	.2 "	25 00	3417	750	5 "	31 50
3407	50	.5 "	25 50	3418	1000	10 "	32 50
3408	75	.5 "	26 00	3419	1200	10 "	33 50
3409	100	1 "	26 50	3420	1500	10 "	39 25
3410	150	1 "	27 00	3421	2000	20 "	43 75
3411	200	2 "	28 00	3422	2500	20 "	45 25
3412	250	2 "	28 25				

The lower ranges up to 75 amperes are self-contained, the shunts being an integral part of the instrument. For ranges above 75 amperes the shunt is detachable.

WESTON STATION VOLTMETERS AND AMMETERS.

For Direct Current.

Low-Priced Instruments for use in Isolated Plants and Wherever Space is Limited.



Model K.

VOLTMETERS.

List No.	Volts 0 to	Scale Division	Price.
8240	3	.05 Volt..	\$15.50
8241	5	.1 " ..	15.50
8242	6	.1 " ..	15.75
8243	10	.2 " ..	16.00
8244	15	.2 " ..	16.00
8245	25	.5 " ..	16.00
8246	50	1 " ..	16.00
8247	80	2 " ..	16.00
8248	130	2 " ..	16.50
8249	150	2 " ..	17.00
8250	250	5 " ..	19.50
8251	300	5 " ..	20.50
8252	600	8 " ..	26.50

SELF-CONTAINED AMMETERS.

List No.	Amperes 0 to	Scale Division	Price.
8253	1	.02 Amp..	\$15.00
8254	5	.1 " ..	15.00
8255	10	.2 " ..	15.00
8256	15	.2 " ..	15.50
8257	25	.5 " ..	15.50
8258	50	1 " ..	15.75
8259	80	2 " ..	15.75
8260	100	2 " ..	16.00
8261	130	2 " ..	16.50
8262	150	2 " ..	16.50
8263	200	4 " ..	17.00

WESTON DIRECT-READING GROUND DETECTORS.

For Direct Current.



This ground detector, which is practically a zero-centre voltmeter, is intended to be fastened to the switchboard. It is provided with three binding-posts, two of which are connected with the line in the usual manner, and the third is grounded. Two push buttons are on the base, by pressing either of which, connection is made with the ground, through the instrument.

The deflection of the pointer having been noted, the insulation of the line is determined directly in ohms by reference to the computing device which is furnished with each instrument.

List No.	Price.
8265 125 volts, with computing device.....	\$65.00
8266 300 volts, with computing device.....	70.00
8267 600 volts, with computing device.....	75.00

These three instruments can be used only on a complete *two-wire* metallic circuit.

QUEEN-WIRT AMMETERS AND VOLTMETERS.

ROUND PATTERN. STATION TYPE.



This type of meter is generally used on feeder circuits in railway and central stations and for isolated plants. The front is of bronze, the base black enamelled.

It is dead-beat and sensitive and may be connected in circuit in either direction, regardless of polarity, without introducing an error. All instruments are made with back terminals. Flanges will be removed from the cases if it is desired to mount the meters as flush type instruments.

Voltmeters—Round Pattern.

DIRECT CURRENT.				
List No.	Volts.	Divisions.		Price.
3480	2 to 15	$\frac{1}{4}$	volts.....	\$24 00
3481	3 " 25	$\frac{1}{4}$	"	24 00
3482	8 " 75	1	"	24 00
3483	80 " 130	1	"	24 00
3484	15 " 150	2	"	24 00
3485	30 " 300	4	"	26 00
3486	60 " 600	8	"	28 00

TO INCREASE RANGE OF 300—VOLT INSTRUMENTS TO			Price.
List No.			
8465	1200 volts, add.....		\$22 00
8466	1500 "		30 00
8467	1800 "		39 00
8468	2400 "		50 00
8469	3000 "		60 00

*ALTERNATING CURRENT.				
List No.	Volts.	Divisions.		Price.
3487	2 to 15	$\frac{1}{4}$	volts.....	\$26 00
3488	3 " 25	$\frac{1}{4}$	"	26 00
3489	8 " 75	1	"	26 00
3490	80 " 130	1	"	26 00
3491	15 " 150	2	"	26 00
3492	30 " 300	4	"	28 00
3493	60 " 600	8	"	30 00

TO INCREASE RANGE OF 300—VOLT INSTRUMENTS TO			Price.
List No.			
8470	1200 volts, add.....		\$28 00
8471	1500 "		35 00
8472	1800 "		44 00
8473	2400 "		56 00
8474	3000 "		66 00

Queen-Wirt Ammeters—Round Pattern.

DIRECT CURRENT.				
List No.	Amperes.	Divisions.		Price.
3450	1 to 10	$\frac{1}{8}$	ampere.....	\$22 00
3451	2 " 15	$\frac{1}{4}$	"	22 00
3452	3 " 30	$\frac{1}{4}$	"	22 00
3453	5 " 50	$\frac{1}{2}$	"	22 00
3454	8 " 75	1	"	22 00
3455	10 " 100	1	"	22 00
3456	12 " 125	1	"	24 00
3457	15 " 150	2	"	24 00
3458	20 " 200	2	"	26 00
3459	25 " 250	2	"	26 00
3460	30 " 300	4	"	26 00
3461	40 " 400	4	"	28 00
3462	50 " 500	5	"	28 00
3463	60 " 600	8	"	28 00
3494	80 " 800	8	"	28 00
3464	100 " 1000	10	"	28 00

*ALTERNATING CURRENT.				
List No.	Amperes.	Divisions.		Price.
3465	1 to 10	$\frac{1}{8}$	ampere.....	\$24 00
3466	2 " 15	$\frac{1}{4}$	"	24 00
3467	3 " 30	$\frac{1}{4}$	"	24 00
3468	5 " 50	$\frac{1}{2}$	"	24 00
3469	8 " 75	1	"	24 00
3470	10 " 100	1	"	24 00
3471	12 " 125	1	"	26 00
3472	15 " 150	2	"	26 00
3473	20 " 200	2	"	28 00
3474	25 " 250	2	"	28 00
3475	30 " 300	4	"	28 00
3476	40 " 400	4	"	30 00
3477	50 " 500	5	"	30 00
3478	60 " 600	8	"	30 00
3495	80 " 800	8	"	30 00
3479	100 " 1000	10	"	30 00

* For frequency of 7,200 or 16,000. State frequency when ordering.

THE QUEEN I-V METER.



This is a new type of meter with working parts much simplified. It is considerably smaller than the Queen-Wirt type and has a well finished case and an attractive front. It has a damping vane and about the normal working point the instrument is very sensitive, therefore the scale divisions wide.

We can recommend it especially to small plants as being a reliable and moderate priced instrument. Accuracy of adjustment 2 percent.

Any intermediate ranges of either Voltmeter or Ammeter at next highest list prices.

Any range can be calibrated for alternating current at an extra list price of \$2.00.

For use where the meter will be subjected to continued movement as in yachts, etc., a spring control is furnished at an extra list price of \$3.00.

QUEEN I-V VOLTMETERS.

List No.	Volts	Divisions	Price.
8475	3-25	in $\frac{1}{4}$ volt.	\$18 00
8476	8-75	" 1 "	18 00
8477	80-130	" 1 "	18 00
8478	15-150	" 2 "	18 00
8479	30-300	" 4 "	20 00
8480	60-600	" 8 "	24 00

QUEEN I-V AMMETERS.

List No.	Amp.	Divisions	Price.
8481	1-10	in $\frac{1}{8}$ amp.	\$16 00
8482	2-15	" $\frac{1}{4}$ "	16 00
8483	3-30	" $\frac{1}{4}$ "	16 00
8484	5-50	" $\frac{1}{2}$ "	18 00
8485	8-75	" 1 "	18 00
8486	10-100	" 1 "	18 00
8487	12-125	" 2 "	20 00
8488	15-150	" 2 "	20 00

THE QUEEN CELL TESTER.



This instrument is particularly designed for the use of those having the care of primary or secondary batteries. It is very small, measuring but $3\frac{1}{2}$ inches in diameter and $1\frac{1}{4}$ inches deep. The instruments are strongly made throughout, having little to get out of order or become injured through accident. The system is the lightest possible on any instrument, thus adding to the sensibility and accuracy. It has no springs and is so well balanced that the Cell Tester may be used either on the wall in a vertical position, or resting on a table horizontally. As the movement is dead beat readings may be taken rapidly. When conducted to a source of electromotive force, the instrument indicates by the movement of the needle both the amount and direction of the potential difference. The scale is carefully cali-

brated and practically uniform. Terminal cords accompany the meter, removing the necessity for carrying about or hunting for odd pieces of wire.

A voltmeter reading to 10 volts is divided into $\frac{1}{10}$ volts and may be read much closer. All instruments are guaranteed as to permanency and accuracy.

List No.	Price.
8490 The Queen Cell Tester, 0 to 10 volts, divided into $\frac{1}{10}$ volts.	\$15 00
8491 The Queen Cell Tester, 0 to 5 volts, divided into $\frac{1}{10}$ volts.	15 00
8492 The Queen Cell Tester, 5 to 0 to 5 volts, divided into $\frac{1}{10}$ volts, reading either way from a central 0 depending upon the direction of the current.	15 00

ROLLER DIRECT READING BOND TESTER.



This Bond Tester is light in weight and is supported by a Strap passing around the Neck of the Observer. This Strap holds the Instrument in a horizontal position. The range of the Bond Tester includes all resistances from zero up to the equivalent of a length of thirty feet of rail.

The Scale is nearly fifteen inches in length but the Apparatus is very compact measuring $5\frac{1}{4} \times 8\frac{1}{4} \times 7\frac{1}{2}$ inches over all. Weight, six pounds.

The complete Outfit consists of Instrument, Carrying Strap, Contact Bar and Connecting Cords.

The Contact Bar folds together into a compact package about $1\frac{1}{2} \times 3 \times 36$ inches.

Full directions with Instrument.

List No.	Price.
13390 Outfit, complete	\$80 00



THE WHITNEY TESTER.

LINESMAN'S TEST SET.

This Instrument consists of a strongly constructed Voltmeter Movement mounted, together with a couple of Batteries, a small Rheostat and a pair of Terminals in a stout Box of hard wood.

A Table showing what number of Scale Divisions corresponds to different resistances is secured in the Cover of the Box so that in taking a reading all that need be done is to touch the Cord Terminals to the circuit to be tested and then read the resistance by reference to the table.

The above Testers are made in two ranges, one giving a readable deflection through 5000 Ohms maximum and the other through 25000 Ohms maximum.

List No.	Price.
13391 Tester, 5000 Ohms	\$28 00
13392 Tester, 25000 Ohms	32 00

THE QUEEN-ACME PORTABLE TESTING SET.



List No. 3338.

The convenience and accuracy of a well designed portable Wheatstone's Bridge recommend it for general resistance work. Its chief advantages, outside of the accuracy attainable and its portability, are its extremely wide range of measurement and its freedom from error or derangement. The coils are wound of platinoid wire, carefully seasoned after winding to prevent gradual changing of the resistance with time. The rheostat coils are adjusted to an accuracy of $\frac{1}{2}$ of 1 per cent; the bridge coils to an accuracy of $\frac{1}{10}$ of 1 per cent. When so ordered the coils will be adjusted to double this accuracy. The rheostat coils are sixteen in number, their combined resistance being 11,110 ohms. In each bridge arm there are three coils of 1, 10 and 100 ohms, and 10, 100 and 1000 ohms respectively. Our special commutator admits of a ratio of 1 to 1000 on either bridge arm. The theoretical range of the test, therefore, is from .001 to 11,110,000 ohms, though for resistance above a megohm additional battery power should be employed.

The blocks and plugs are finished to a standard taper, thereby insuring exact fit in whatever order the plugs may be replaced.

List No.	Price.
3338 Queen-Acme Portable Testing Set, Style D.....	\$100 00
3339 Queen-Acme Portable Testing Set, special form for insulation measurements.....	130 00
3340 Queen-Acme Special; same as No 3339, but with 50 chloride of silver cells in same case...	200 00
3341 Sole-Leather Carrying Case for Nos 3338 or 3339.....	6 00
3342 Sole-Leather Carrying Case for No. 3340.....	9 00
3343 Flexible Contact Clutches.....	5 00
3344 Folding Tripod for street work.....	7 50
When any of the above sets are ordered adjusted to double the accuracy, add.....	15 00

WHITNEY DECADE TESTING SET.



With only four Plugs in the Rheostat of this Set, we are enabled to introduce a resistance variable by steps of one Ohm from zero to 11,110 Ohms, which, in combination with the two four-coil Ratio Arms, gives a total theoretical range of measurement of .001 of an Ohm to over 11 Megohms. Five large Cells of Dry Battery are built into the Set and so arranged that any number, from one up, can be cut in at will. The Keys are specially designed, so that they can be used independently when desired, as is necessary in making loop tests. A novel arrangement shifts from the Murray to the Varley connections by moving a single Plug from one receptacle to the other, so that the two X posts are used for all measurements. A device enables an External Galvanometer to be substituted for the one in the Set, by moving a single Plug. Provision is made for the attachment of External Batteries when desired. The Galvanometer is highly sensitive, not influenced by external magnetism, and can be used at any meridian. All Coils are standardized by direct comparison with certified standards and a certificate of accuracy accompanies each Instrument.

With each Testing Set is furnished a set of directions for using same in the measurement of resistances, making the Murray test, making the Varley test, calibrating Volt-

meters and calibrating Ammeters. Size, 10x6x6½ inches. Weight about eleven pounds.

List No.		Price.
13393	Testing Set, complete.....	\$65 00
13394	Leather Carrying Case, extra.....	6 50

QUEEN PORTABLE D'ARSONVAL GALVANOMETER.



The usual weakness of a Portable Galvanometer is its lack of sensibility. Or, if the sensibility is high, the Instrument requires troublesome adjustment to prepare it for use. In this Instrument the manufacturers have entirely overcome these difficulties and now present a thoroughly Portable Galvanometer having a sensibility about six times higher than heretofore. Even with this high sensibility the Instrument withstands shipment without injury, requiring no support for the system, no adjustments preparatory to using and not effected by external magnetic or mechanical disturbances. The increased length of Scale makes the Galvanometer suited to either direct deflection measurements or the Wheatstone's Bridge method. The

case is of polished Mahogany, 4 x 5½ x 6 inches with Lock and Handle.

List No.		Price.
8725	Queen Portable D'Arsonval Galvanometer, resistance about 300 Ohms, sensibility about ¾ Megohm.....	\$30 00
8726	Queen Portable D'Arsonval Galvanometer, resistance about 400 Ohms, sensibility about 1 Megohm.....	36 00

Thomson Astatic Feeder Type Direct Current Instruments.



The fields of these instruments are electro-magnets wound for any specified voltage and provided with binding posts separate from the current posts of the instrument.

The moving coils are mounted upon an aluminum disk and are located in a magnetic field which is parallel to the shaft and astatically arranged.

Thomson astatic instruments have no controlling springs and the accuracy of the instrument is not affected by changes in magnet strength.

The effects of external fields are eliminated by the astatic arrangement of the fields and the moving elements.

Short circuits, no matter how severe, cannot change the calibration.

The damping effect in these instruments is produced by an aluminum disk moving in a magnetic field.

If cleaning or repairs are necessary at any time, this frame can be removed. Provided the instrument is carefully reassembled, its accuracy will not be altered more than a fraction of one per cent. and recalibration is therefore unnecessary. In places where instruments are exposed to considerable moisture the facility of removing the mechanism and afterward reassembling it, is of great importance.

The binding posts of these instruments

are so placed that they may be used for front or back connection without alteration.

The standard finish is dull black with raised portions of cover buffed to copper.

Price includes shunt. Five foot leads are furnished unless otherwise specified.

Orders for ammeters and voltmeters must always specify the voltage of the circuit on which the instrument is to be used. Ordering by List No. and rated capacity is not sufficient.

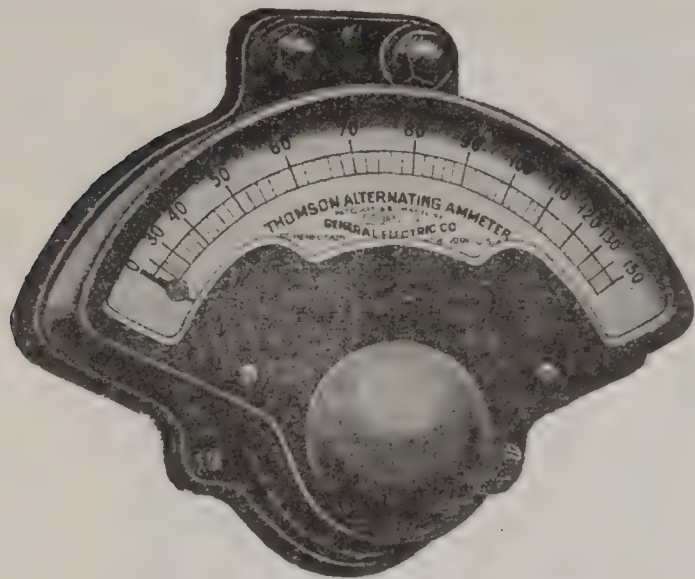
ASTATIC D C. AMMETERS.						VOLTMETERS.		
List No.	Capacity in Amp.	Price.	List No.	Capacity in Amp.	Price.	List No.	Capacity in Volts	Price.
8495	15	\$62 00	8503	400	\$72 00	8511	100	\$70 00
8496	25	63 00	8504	500	74 00	8512	175	78 00
8497	50	64 00	8505	600	76 00	8513	350	82 00
8498	75	65 00	8506	800	78 00	8514	750	92 00
8499	100	66 00	8507	1000	82 00	....	...	....
8500	150	67 00	8508	1500	98 00	....	...	....
8501	200	68 00	8509	2000	110 00	....	...	....
8502	300	70 00	8510	2500	115 00	....	...	....

Thomson Astatic Illuminated Dial Direct Current Instruments.

These are similar to the instruments listed above, with the addition of the illuminated dial feature. Two 52 volt miniature incandescent candelabra lamps are used for illuminating the scales of all instruments excepting those having an exciting voltage of 250, which are shipped with 120 volt lamps.

AMMETERS.						VOLTMETERS.		
List No.	Capacity in Amp	Price.	List No.	Capacity in Amp.	Price.	List No.	Capacity in Volts	Price.
8515	300	\$160 00	8521	2000	\$190 00	8526	100	\$150 00
8516	500	162 00	8522	2500	194 00	8527	175	154 00
8517	600	164 00	8523	3000	198 00	8528	350	158 00
8518	800	166 00	8524	4000	215 00	8529	750	162 00
8519	1000	168 00	8525	5000	245 00	....	...	.....
8520	1500	182 00	....	....	.....	....	...	.....

Thomson Switchboard
Volt and Ammeters.



These instruments are designed for alternating current circuits of any frequency, but may be used upon direct current circuits with a possible error nowhere exceeding 2½ per cent. Back connections will be provided unless binding posts for front connections are specified.

Instruments for use on circuits of over 2500 volts require current transformers.

The standard length of stud from the face of the switchboard is 5 inches.

The standard finish is dull black.

The voltage of the circuit should be stated in the order.

Inclined Coil Ammeters.

Inclined Coil Voltmeters.

List No.		Capacity in Amperes	Price.	
Direct	Alt'g		Direct	Alt'g
8535	8546	10	\$40 00	\$40 00
8536	8547	15	40 00	40 00
8537	8548	25	40 00	40 00
8538	8549	35	40 00	40 00
8539	8550	50	40 00	40 00
8540	8551	75	40 00	40 00
8541	8552	100	45 00	45 00
8542	8553	150	45 00	45 00
8543	8554	200	45 00	45 00
8544	8555	350	65 00	65 00
8545	8556	500	65 00	65 00

List No.		Capacity in Volts	Price.	
Direct	Alt'g		Direct	Alt'g
8557	8563	85	\$45 00	\$45 00
8558	8564	100	45 00	45 00
8559	8565	175	45 00	45 00
8560	8566	350	65 00	65 00
8561	8567	525	65 00	65 00
8562	8568	750	65 00	65 00

Round Pattern
Direct Current Indicators.



The construction of these instruments is of the most substantial kind. The scale is long and well graduated, and the indications are reliable. The pivots of the instruments are hung in high grade jewels, and the torque is sufficiently high to give positive motion.

Front connections will be furnished unless studs are specified. The binding posts are, however, hidden and may be conveniently used for front or back connections without modification. The instruments may, therefore, be used on panels in connection with a starting box and controlling switch for motors or with the usual equipment of an isolated plant.

The 10 ampere size of the Round Pattern or "Form B" Ammeters can be calibrated for use on arc circuits for \$2.00 list extra, and is extremely satisfactory as an arc ammeter. Orders for Form B Current Indicators for this service must specify "For use on arc circuits." All Current Indicators for arc circuits are specially insulated and the scales are definitely marked with conspicuous figures for normal currents of both 6.6 ampere and 9.6 ampere circuits. The standard finish of the cover is dull black with raised portions buffed to copper. The base is black japan.

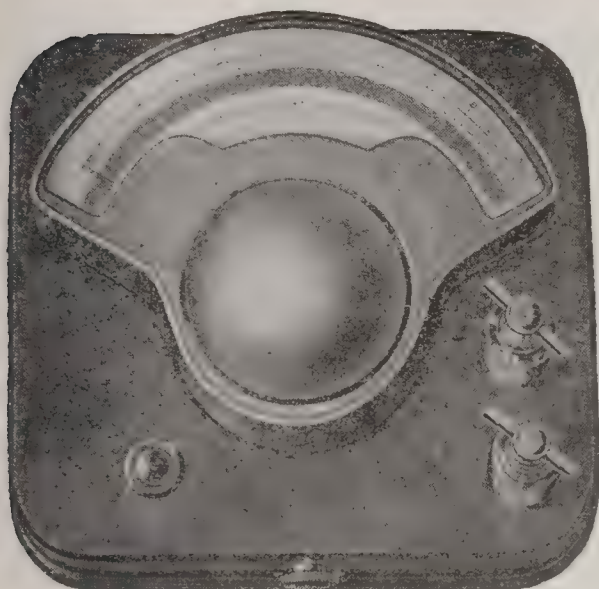
Ammeters.

Voltmeters.

List No.	Capacity in Amperes	Price.
51000	10	\$20 00
51001	25	20 00
51002	50	20 00
51003	75	25 00
51004	100	25 00
51005	150	25 00
51006	200	30 00

List No.	Capacity in Volts	Price.
51133	75	\$30 00
51075	150	30 00
51076	300	30 00
.....
.....
.....
.....

THOMSON INCLINED
COIL PORTABLE
AMMETERS AND VOLT-
METERS.



AMMETER.

These Instruments are accurate and permanent irrespective of frequency, and may be relied upon for all measurements of alternating current circuits. They may also be used with good results on direct current circuits.

Their construction is such as to enable them to withstand, without loss of accuracy, the rough usage to which they may be exposed.

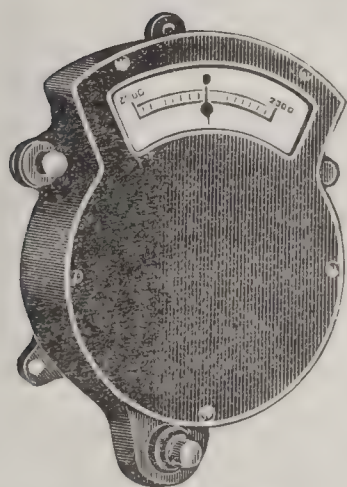
A hard wood Carrying Case is sent with each Instrument.

The standard finish is Black Oxide Cover with Mahogany Base.

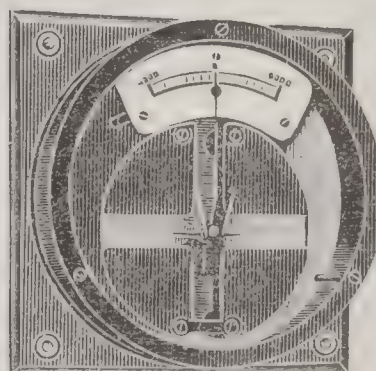
Ammeters.			
List No.			Price.
8575	Capacity	2 Amperes	\$40 00
8576	"	10 "	40 00
8577	"	15 "	40 00
8578	"	25 "	40 00
8579	"	50 "	40 00
8580	"	100 "	50 00

Ammeters.		
List No.		Price
8581	Capacity 200 Amperes	\$50 00
Voltmeters.		
8582	Capacity 65 Volts	50 00
8583	" 130 "	50 00
8584	" 300 "	50 00
8585	" 600 "	50 00

G. E. CO.'S GROUND DETECTORS FOR SINGLE-PHASE CIRCUITS.



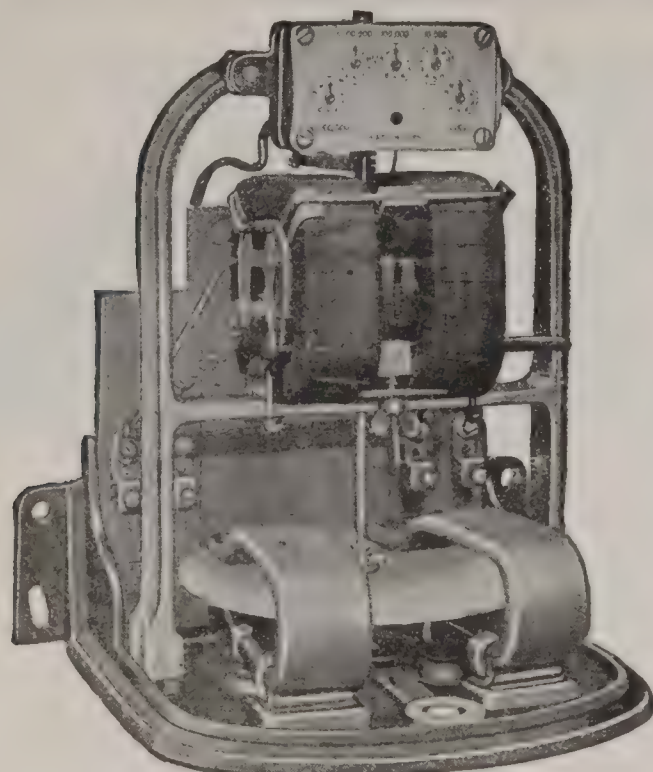
List No. 8636.



List No. 56169.

The standard finish for List Nos. **8636** and **55169** is Dull Black with raised portions of Cover of buffed Copper. The Instruments which are mounted on Marble Bases have Cylindrical Casing and other metal parts in Black Oxide. These are provided with Graphite Resistance mounted on separate Marble Base.

List No.		Price.
8635	For 1100 Volts Circuits, in Iron Box, includes Cartridge Fuse	\$ 50 00
8636	" 2200 " " " " " " "	60 00
56169	" 1100 " " on Marble Base	100 00
56170	" 2200 " " " " " "	100 00



Without Cover.

Front Connected, Metal Cover, No. 3 Finish.**50-55 Volts.**

List No.	Lights	Amperes	Price.
8640	5	5	\$27 50
8641	10	10	30 00
8642	15	15	33 00
8643	25	25	45 00
8644	50	50	50 00
8645	75	75	70 00
8646	100	100	80 00
8647	150	150	100 00
8648	200	200	110 00
8649	300	300	130 00

200-240 Volts, Three-Wire.

List No.	Lights	Amperes	Price.
8665	15	3½	\$35 00
8666	30	7½	35 00
8667	60	15	50 00
8668	100	25	60 00
8669	200	50	75 00
8670	300	75	85 00
8671	400	100	100 00
8672	600	150	125 00
8673	800	200	150 00
8674	1200	300	175 00
8675	1800	450	210 00
8676	2400	600	250 00

Meters for Motor Service.**Front Connected,
Metal Cover, No. 3 Finish****500-600 Volts.**

List No.	H. P.	Amperes	Price.
8691	1½	3	\$40 00
8692	2½	5	40 00
8693	5	10	50 00
8694	7½	15	55 00
8695	15	25	65 00
8696	30	50	75 00
8697	50	75	90 00
8698	60	100	105 00
8699	100	150	125 00
8700	120	200	150 00
8701	200	300	175 00
8702	300	450	225 00
8703	400	600	275 00
8704	800	1200	325 00

THOMSON RECORDING WATTMETERS.

Front connected for house installation has cast metal cover. The cover and base are finished in black japan. This finish is known as No. 3.

Back connected for switchboard installation has cylindrical glass cover with cast metal frame. The base is finished in black japan: metal parts of cover and interior of meter have dull black finish. This finish is known as No. 5.

Lights are rated on a basis of 50 Watts per lamp.

100-120 Volts.

List No.	Lights	Amperes	Price.
8651	6	3	\$27 50
8652	10	5	27 50
8653	20	10	30 00
8654	30	15	33 00
8655	50	25	45 00
8656	100	50	50 00
8657	150	75	70 00
8658	200	100	80 00
8659	300	150	100 00
8660	400	200	110 00
8661	600	300	130 00
8662	900	450	160 00
8663	1200	600	190 00
8664	2400	1200	275 00

200-240 Volts, Two-Wire.

List No.	Lights	H. P.	Amperes	Price.
8677	12	1	3	\$36 50
8678	20	1¼	5	36 50
8679	40	2	10	45 00
8680	60	3½	15	50 00
8681	100	7	25	60 00
8682	200	15	50	70 00
8683	300	20	75	85 00
8684	400	25	100	100 00
8685	600	40	150	120 00
8686	800	50	200	135 00
8687	1200	80	300	150 00
8688	1800	125	450	190 00
8689	2400	160	600	220 00
8690	4800	320	1200	300 00

High Capacity Astatic Wattmeters For Switchboard Use.

**Back Connected, Glass Case, No. 5 Finish
100-120 Volts.**

List No.	Lights	Amperes	Price.
27835	1600	800	\$ 300 00
27836	2400	1200	325 00
27837	3000	1500	350 00
27838	4000	2000	400 00
27839	6000	3000	425 00
27840	8000	4000	450 00
27841	12000	6000	500 00
27842	16000	8000	750 00
27843	20000	10000	1,000 00

Thomson Inclined Coil Portable Indicating Wattmeters.



These instruments will be found peculiarly useful for incandescent lamp, transformer and alternating arc lamp measurements.

They are correct on any potential and current within the limits of the instrument, with currents of any wave form or frequency on inductive or non-inductive load and, by taking reversed readings to eliminate the errors due to local fields, are correct on direct current circuits.

The permissible maximum current is marked upon each instrument, and all sizes may be used at any voltage from 0 to 150.

The 150 watt size is designed especially for measuring iron losses of transformers and for incandescent lamp work.

The indicating wattmeter may be used in connection with direct current measurements, and gives accurate results when so used, provided two observations are taken for each reading. The connections of the instrument must be reversed between the observations,

the mean of the two observations giving the true watts.

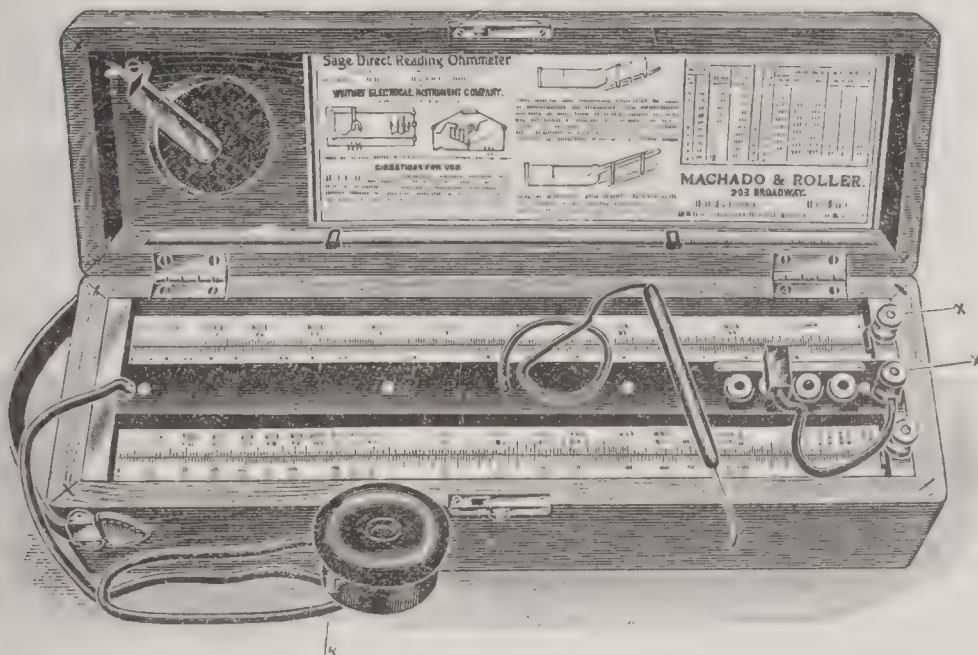
The standard finish is black oxide with mahogany base.

List No.	Capacity in Watts.	List Price.	List No.	Capacity in Watts.	List Price.
8715	150	\$75 00	8719	5000	\$110 00
8716	300	75 00	8720	10000	115 00
8717	1500	75 00	8721	15000	120 00
8718	2500	75 00	8722	20000	125 00

Lamp Inspectors' Indicating Wattmeter.

List No.	Capacity in Watts.	List Price.
8723	150	\$100 00

Sage Ohmmeters.



For almost all purposes they are greatly superior to a portable Wheatstone bridge, having no loose plugs to be lost, no large number of plug contacts with their variable resistance, no delicate galvanometer to be injured by rough handling and giving results directly in ohms without the necessity of any computation whatsoever.

The scales are 30 inches long and therefore can be read very exactly. Each instrument is provided with two additional loose scales, which are equally divided, and which are dropped into place when locating crosses and grounds on lines and

show directly the distance of the point of trouble from one or the other binding posts on the instrument. The batteries necessary for the operation of the ohmmeters are in a separate compartment in the base of the instrument case and may be removed and renewed at a small expense in a moment's time.

Their simplicity of operation can be appreciated from the fact that after ten minutes practice an unskilled observer can correctly determine an unknown resistance in less than 30 seconds.

Type A, four scales, ranges			Type B, four scales, ranges		
List No.	0 to 10 ohms 0 to 100 " 0 to 1,000 " 0 to 2,000,000 "	Price.	List No.	0 to 10 ohms 0 to 100 " 0 to 1,000 " 0 to 200,000 "	Price.
8710		\$50 00	8711		\$45 00

Leather Carrying Case, Net.....\$5 50

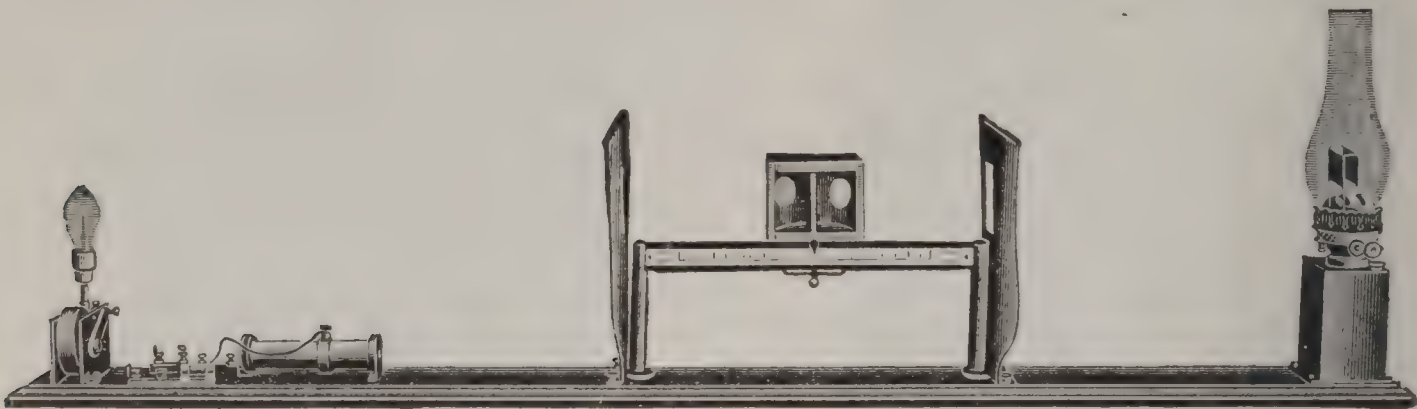
Other ranges to order.

For those who have frequently to measure the resistance of electrolytes, of circuits in which there is an E. M. F., to compare inductances or compare capacities, we build a special form of ohmmeter, which contains, in addition to the regular telephone receiver, a galvanometer which responds to direct current only and an induction coil from whose secondary alternating current may be taken and applied to the bridge wire terminals.

Switches are provided by the simple movement of which either the telephone or the galvanometer may be used and alternating or direct current turned on at will.

Instruments of this class cost \$15 00 list extra.

THE DESHLER-McALLISTER PHOTOMETER.



Many commercial users of incandescent electric lamps, while duly appreciating the importance of more accurate and complete knowledge as to the actual performance of the lamps they use or are solicited to use, feel that they cannot afford an expensive laboratory testing outfit for purposes of obtaining merely approximate measurements, as in testing old lamps or in ascertaining the comparative value of the lamps of different makes ; beside which, the style of Photometer generally offered has proved far more elaborate than necessary, and too complicated to permit of rapid work.

In developing the Deshler-McAllister Portable Photometer, especial consideration has been given to the requirements of commercial users of incandescent lamps, and as a result we are able to offer an instrument embodying in marked degree all of the essential features calculated to produce an ideal Central-Station Photometer, namely, simplicity in construction and method of operation ; accuracy and reliability coupled with possibilities for rapid work of approximate exactness, and, last but not least, a price so low as to be within the reach of even the smallest electric lighting plants,

In attaining a maximum of simplicity in this instrument, the greatest factor and only radical departure from old methods has been the introduction of a novel secondary or "working" standard of light, which is standardized by the operator by means of photometrical comparisons with regular laboratory-tested standard incandescent lamps.

This secondary or "working" standard of light consists of two independently adjustable kerosene oil flames produced by a duplex burner of about thirty-two candle-power. In practice these oil flames burn at only eight candle-power, or about one-quarter of their normal rating, producing an even, steady standard of light that remains constant for hours at a time without readjustment. A double screen operated by a milled screw serves to cut off the ragged edges at the top of the oil flames, thus insuring a steady source of light for the standard and furnishing a ready means of making very fine gradations in the volume of light produced.

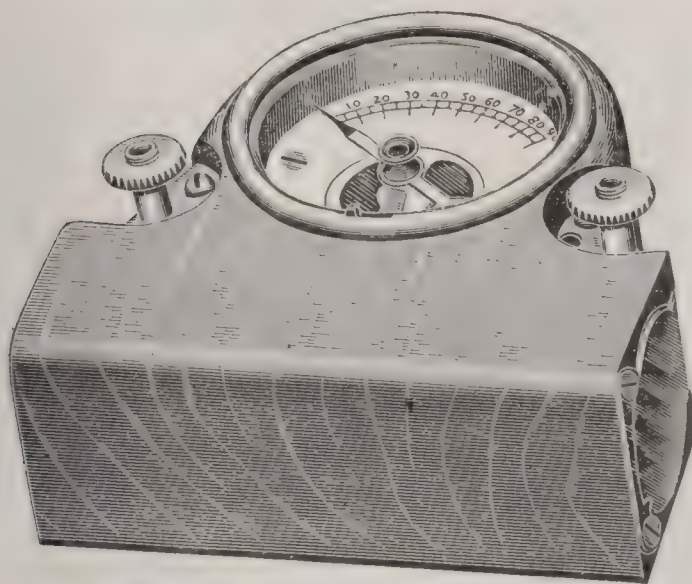
These oil flames are set by the "primary" or testing-standards of light, which are laboratory-tested incandescent electric lamps of low economy, carefully seasoned and standardized for c. p. and volts. These standard lamps are screwed one after another into the lamp-stand on the left of the Photometer and the voltages over them, as indicated by a Voltmeter, adjusted by a sliding-resistance until they agree with that marked on labels. Maintaining each lamp at its labeled voltage and with the spot-box set at labeled c. p. the oil flames are adjusted until the spots are balanced. This accomplished, the oil flames now become the standard of light and regular lamp testing proceeds from the same end of Photometer recently used in calibrating the instrument.

List No.	Price.
13421 Central Station Type Portable Photometer, complete with Electric Rotator, and Canvas Carrying Case.....	\$90.00
13422 Salesman's Type Portable Photometer, complete with Electric Rotator, and extra Lamps, increased resistance, etc.....	110.00
8777 Non-Portable, or Rigid Base, Deshler-McAllister Photometer, without Rotator.....	42.50
8778 Central Station Type Portable Photometer, complete without Rotating Attachment.....	50.00
8779 Salesman's Type Portable Photometer, complete without Rotating Attachment..	70.00
8780 Mercury Contact Rotator, complete with Spring Motor.....	28.00
8781 Mercury Contact Rotator, complete without Motor.....	15.00
8782 Hard Rubber Adapters for Standard Lamp Bases other than Edison and T. H., each	2.00
8783 Primary Standard Incandescent Lamps, each.....	1.50
8784 Extra Spot Cards, 30c. each, per dozen.....	3.00

IMPORTANT !

In ordering, please state approximate voltage that instrument is to be used upon, in order that we may send properly selected test lamps: specify as to whether or not Rotator is wanted, and List Number.

THE MESCO TESTING GALVANOMETER.



This is a Pocket Galvanometer of extreme sensitiveness, with a small Battery contained in the case, and is designed for testing circuits for leaks in place of the ordinary Testing Bell. The Needle shows a marked deflection through resistance of over 150000 Ohms, making it possible to detect much smaller leaks than a Testing Bell will show. It may also be used to measure resistances approximately, a table showing scale readings for different resistances being furnished with each Instrument. Size is 3 x 3 x 1½ inches. Two three-foot Cords included.

List No.	Price.
13395 Galvanometer, complete	\$8 00
13396 Extra Battery	25



POCKET GALVANOMETER.

About the size of an ordinary silver watch and has a close fitting Cover. Can be carried conveniently in the vest pocket. Polished Brass finish.

List No.	Price.
3334 Galvanometer	\$5 00



PERMANENT HORSESHOE MAGNETS.

List No.	Price.
4975 2 -inch, each	\$0 15
4976 2½ " "	20
4977 3 " "	25
4978 3½ " "	35
4979 4 " "	50
4980 5 " "	75
4981 6 " "	1 00
4982 7 " "	1 70
4983 8 " "	2 25
4984 10 " "	3 80
4985 12 " "	6 50

MANHATTAN POLARITY INDICATOR.



Cut ½ size.

Can be carried in the vest pocket.

Size, 3½ x 1 inch.

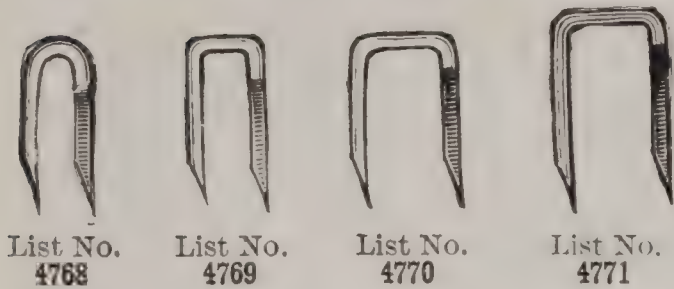
Will indicate instantly the negative and positive poles when connected in circuit.

The Nickel-Plated Shell will cover and protect the Glass Tube from injury while being carried in the pocket or tool bag. The neatest, most compact, durable and reliable Indicator made.

List No.	Price.
3320 For use with battery	\$1 50
3321 For 50 to 600 Volts.....	1 50

WIRING SUPPLIES.

DOUBLE POINTED TACKS.



List No.	Size	Price.
4767	Size $\frac{3}{8} \times \frac{1}{4}$ inch, Coppered, per lb..	\$0 22
4768	" $\frac{1}{8} \times \frac{1}{2}$ " " " " "	22
4769	" $\frac{3}{16} \times \frac{5}{8}$ " " " " "	20
4770	" $\frac{5}{16} \times \frac{9}{16}$ " " " " "	20
4771	" $\frac{3}{8} \times \frac{5}{8}$ " " " " "	20

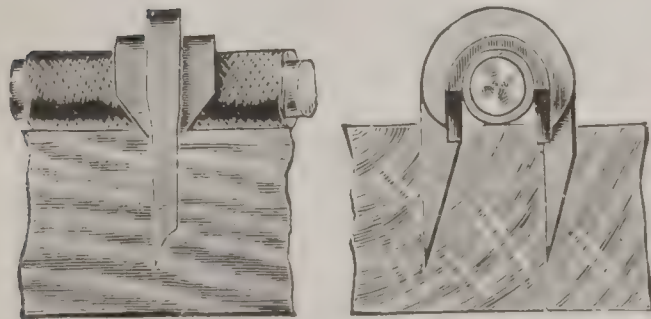


BLAKE INSULATED STAPLE.

Designed for use on all low voltage circuits of interior wiring, such as telephone, telegraph, messenger call; annunciator and bell work have good driving qualities and Fibre Insulation on these Staples will not come off in driving.

List No.	Price.
4772 $\frac{1}{2}$ -inch, 100 in package, per 1000	\$2 90
4773 $\frac{3}{4}$ " " " " " " "	2 90
4774 $\frac{5}{8}$ " " " " " " "	3 20
4775 $\frac{7}{8}$ " " " " " " "	3 20

INSULATING SADDLE STAPLES.



List No.	Price.
4776 For Wire $\frac{5}{16}$ in. in diam., per 1000	\$2 00
4777 " " $\frac{1}{16}$ " " " " "	2 50
4778 " " $\frac{15}{100}$ " " " " "	3 00
4779 " " $\frac{25}{100}$ " " " " "	5 00
4780 " " $\frac{40}{100}$ " " " " "	11 00
4781 " " $\frac{50}{100}$ " " " " "	12 00

"PIG TAIL" HOOKS.

Vulcanized Rubber Insulated Screw Eyes.



List No.	Price.
3950 $1\frac{1}{4}$ inches long over all, adapted for carrying Lamp Cord along ceiling, per 100	\$5 40

BRASS CLEATS FOR CAR WIRING.



List No.	Price.
15118 Brass Cleats for $\frac{8}{16}$ inch diameter wire, per 1000	\$ 9 00
15100 " " " $\frac{3}{8}$ " " " " "	12 00
15103 " " " $\frac{1}{2}$ " " " " "	16 00
15108 " " " $\frac{11}{16}$ " " " " "	20 00
15102 Brass Corner Cleats for $\frac{3}{8}$ inch diameter wire, per 1000	12 00
15104 " " " $\frac{1}{2}$ " " " " "	12 00
15116 " " " $\frac{11}{16}$ " " " " "	16 00

LEATHER NAIL HEADS OR WASHERS.

A small Leather Ring or Washer for use with Porcelain Insulators and Cleats where it is desired to fasten them with nails instead of screws.

List No.	Price.
3952 Leather Heads, 1000 in package, per pkg	\$1 00

COPPER WIRE TABLES. (BASED ON THE B. A. UNIT.)

GAUGE. B. & S. No.	DIAMETER. In 1000ths	Sectional Area. In Circular Miis.	CAPACITY. In Amp.	OHMS.			FEET.		POUNDS.	
				Per 1,000 Ft.	Per Mile.	Per Pound.	Per Pound.	Per Ohm.	Per 1,000 Ft.	Per Chm.
0000	.460	211600.	312.	.04906	.25903	.000077	1.56122	20497.7	640.51	12987.
000	.40964	167805.	262.	.06186	.32664	.00012	1.9687	16255.27	507.95	8333.
00	.3648	133079.	220.	.07801	.41187	.00019	2.4824	12891.37	402.83	5203.
0	.32486	105534.	185.	.09831	.51909	.00031	3.1303	10223.08	319.45	3225.
1	.2893	83694.	156.	.12404	.65490	.00049	3.94714	8107.49	253.34	2041.
2	.25763	66373.	131.	.1563	.8258	.00078	4.97722	6429.58	200.91	1282.
3	.22942	52634.	110.	.19723	1.0414	.00125	6.2765	5093.61	159.32	800.
4	.20431	41743.	92.3	.24869	1.313	.00198	7.9141	4043.6	126.35	505.
5	.18194	33102.	77.6	.31361	1.655	.00314	9.97983	3206.61	100.20	318.
6	.16202	26251.	65.2	.39546	2.088	.00499	12.5847	2542.89	79.462	200.
7	.14428	20817.	54.8	.49871	2.633	.00792	15.8696	2015.51	63.013	126.
8	.12849	16510.	46.1	.6529	3.3	.0125	20.0097	1599.3	49.976	80.
9	.11443	13094.	38.7	.7892	4.1	.0197	25.229	1268.44	39.636	50.
10	.10189	10382.	32.5	.8441	4.4	.0270	31.8212	1055.66	31.426	37.
11	.090742	8234.	27.3	1.254	6.4	.0501	40.1202	797.649	24.924	20.
12	.080808	6530.	23.	1.580	8.3	.079	50.5906	632.555	19.766	12.65
13	.071961	5178.	19.3	1.995	10.4	.127	63.7948	501.63	15.674	7.87
14	.064084	4107.	16.2	2.504	13.2	.200	80.4415	397.822	12.435	5.00
15	.057068	3257.	13.6	3.172	16.7	.320	101.4365	315.482	9.859	3.12
16	.05082	2583.	11.5	4.001	23.	.512	127.12	250.184	7.819	1.95
17	.045257	2048.	9.6	5.04	26.	.811	161.29	198.409	6.199	1.23
18	.040303	1624.	8.1	6.36	33.	1.29	203.374	157.35	4.916	.775
19	.03589	1288.	....	8.25	43.	2.11	256.468	124.777	3.899	.473
20	.031961	1021.	....	10.12	53.	3.27	323.399	98.9533	3.094	.305
21	.028462	810.	....	12.76	68.	5.20	407.815	78.473	2.452	.192
22	.025347	642.	....	16.25	85.	8.35	514.193	62.236	1.945	.119
23	.022571	509.	....	20.30	108.	13.3	648.452	49.3504	1.542	.075
24	.0201	404.	....	25.60	135.	20.9	817.688	39.1365	1.223	.047
25	.0179	320.	....	32.2	170.	33.2	1031.038	31.0381	.9699	.030
26	.01594	254.	....	40.7	214.	52.9	1300.180	24.6131	.7692	.0187
27	.014195	201.	....	51.3	270.	84.2	1639.49	19.5191	.6099	.0118
28	.012641	159.8	....	64.8	343.	134.	2067.364	15.4793	.4837	.0074
29	.011257	126.7	....	81.6	432.	213.	2606.959	12.2854	.3835	.0047
30	.010025	100.5	....	103.	538.	338.	3287.084	9.7355	.3002	.0029
31	.008923	79.7	....	130.	685.	539.	4414.49	7.72143	.2413	.0018
32	.00795	63.	....	164.	865.	856.	5226.915	6.12243	.1913	.0011
33	.00708	50.1	....	206.	1033.	1357.	6590.41	4.85575	.1517	.00076
34	.006304	39.74	....	260.	1389.	2166.	8312.8	3.84966	.1204	.00046
35	.005614	31.5	....	328.	1820.	3521.	10481.77	3.05305	.0956	.00028
36	.005	25.	....	414.	2200.	5469.	13214.16	2.4217	.0757	.00018
37	.004453	19.8	....	523.	2765.	8742.	16659.97	1.92086	.06003	.00011
38	.003965	15.72	....	660.	3486.	13772.	21013.25	1.52292	.04758	.00007
39	.003531	12.47	....	832.	4395.	21896.	26496.237	1.20777	.03755	.00004
40	.003144	9.88	....	1049.	5542.	34823.	33420.63	0.97984	.02992	.000029

Comparative Table of B. and S. and B. W. Gauges in Decimal Parts of an Inch.

Birmingham Wire Gauge.	.451 .425 .38 .34 .3 .284 .259 .238 .22 .203 .18 .165 .148 .134 .12 .109 .095 .083 .072 .065 .058 .049 .042 .035 .032 .028 .025 .022 .02 .018 .016 .014 .013 .012 .01 .009 .008 .007 .005 .004
American (B. and S. Gauge.	.46 .40964 .3648 .32486 .2893 .25768 .22942 .20431 .18194 .16202 .14428 .12849 .11443 .10189 .090742 .080808 .071961 .064084 .057068 .05082 .045257 .040303 .03589 .031961 .028462 .025347 .022571 .0201 .0179 .01594 .014195 .012641 .011257 .010025 .008928 .00795 .00708 .006304 .005614 .005 .004453 .003965 .003531 .003144
No. of Wire Gauge.	0000 000 00 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

Comparative Table of the Fractional and Decimal Parts of an Inch.

$\frac{1}{64}$	$\frac{1}{32}$	$\frac{3}{64}$	$\frac{1}{16}$	$\frac{5}{64}$	$\frac{3}{32}$	$\frac{7}{64}$	$\frac{1}{8}$	$\frac{9}{64}$	$\frac{5}{32}$	$\frac{11}{64}$	$\frac{3}{16}$	$\frac{13}{64}$	$\frac{7}{32}$	$\frac{15}{64}$	$\frac{1}{4}$	$\frac{17}{64}$	$\frac{9}{32}$	$\frac{19}{64}$	$\frac{5}{16}$	$\frac{21}{64}$	$\frac{11}{32}$	$\frac{23}{64}$	$\frac{3}{8}$	$\frac{25}{64}$	$\frac{13}{32}$	$\frac{27}{64}$	$\frac{7}{16}$	$\frac{29}{64}$	$\frac{15}{32}$	$\frac{31}{64}$	$\frac{1}{2}$
.015625	.031250	.046875	.062500	.078125	.093750	.109375	.125000	.140625	.156250	.171875	.187500	.203125	.218750	.234375	.250000	.265625	.281250	.296875	.312500	.328125	.343750	.359375	.375000	.390625	.406250	.421875	.437500	.453125	.468750	.484375	.500000

ANNUNCIATOR AND OFFICE WIRE.

Double Cotton, Wrapped, Waxed
and Paraffined Annunciator
Wire.



These wires are covered in various colors. Red, red and white, blue, blue and white, yellow, brown, are usually carried in stock. No. 18 is the standard for bell work, etc. On spools about 8 lbs. each.

Plain Copper.

List No.		Price
3775	No. 16—105 feet per lb.....	\$0 50
3776	" 18—155 " "	52
3778	" 20—239 " "	58

Tinned Copper.

List No.		Price
9920	No. 16—105 feet per lb.....	\$0 54
9921	" 18—155 " "	56
9922	" 20—239 " "	62

Patent Finish, Damp-Proof Office
Wire in Coils.



Braided outside covering in red, blue, red and white, blue and white.

List No.		Price
3784	No. 14—52 feet per lb.....	\$0 50
3785	" 16—71 " "	52
3786	" 18—98 " "	55

Double Conductor Office Wire.

List No.		Price
3788	No. 16—45 feet per lb.....	\$0 60
3789	" 18—50 " "	62

OFFICE OR INTERIOR CABLES.

Our Office Cables will be found very desirable for interior work, under conditions of perfect dryness, for which they are especially designed. They are composed of conductors of number 18 Annunciator wire, bunched with a paraffined heavy braided covering over all.

Any Size.....per lb. \$0 60

Approximate number of feet per pound of Office Cables, No. 18 Conductor:

2 Conductors.....60 feet.	16 Conductors.....9 feet.	34 Conductors.....4 feet.
4 "26 "	18 "8 "	38 "3¾ "
6 "20 "	20 "7 "	40 "3½ "
8 "16 "	22 "6 "	46 "3 "
10 "13 "	24 "5½ "	50 "2¾ "
12 "11 "	26 "5 "	100 "1½ "
14 "10 "	30 "4½ "	

Cables of 4, 6, 8, 10, 12, 15 and 18 Conductors carried in stock.

Always state number of conductors wanted.

GAS FIXTURE WIRE.

White or Yellow.

List No.		Price
3792	No. 22 Triple Wound, cotton insulation, per lb.....	\$1 50
3793	" 24 " " " "	1 80
9923	" 22 " with silk outside, "	3 00
9924	" 24 " " " " "	3 40

When ordering state color wanted.

RUBBER COVERED WIRES AND CABLES.
NATIONAL ELECTRICAL CODE STANDARD.

SOLID CONDUCTOR.



Price per 1000 feet, Single Braid.

Bars.

Size B. & S.	12c	13c	14c	15c	16c	17c	18c	Add for Double Braid.
0000	\$398 00	\$411 00	\$425 00	\$438 00	\$451 00	\$465 00	\$478 00	No Extra
000	334 00	344 00	355 00	365 00	376 00	387 00	397 00	No Extra
00	278 00	287 00	295 00	303 00	312 00	320 00	329 00	No Extra
0	200 00	207 00	213 00	219 00	226 00	232 00	239 00	No Extra
1	158 00	163 00	168 00	173 00	178 00	183 00	188 00	\$17 00
2	117 00	122 00	126 00	130 00	134 00	138 00	142 00	13 00
3	98 00	101 00	104 00	107 00	110 00	114 00	117 00	12 00
4	80 80	83 40	85 80	88 40	91 00	93 40	96 00	11 00
5	69 40	71 40	73 40	75 40	77 40	79 40	81 40	10 00
6	59 00	60 50	62 10	63 70	65 30	66 90	68 40	9 00
8	37 60	38 60	39 60	40 60	41 60	42 60	43 60	8 00
9	32 60	33 40	34 20	34 90	35 70	36 50	37 30	7 50
10	27 90	28 50	29 20	29 80	30 40	31 10	31 70	7 00
12	21 20	21 60	22 00	22 40	22 80	23 20	23 60	6 00
14	16 80	17 00	17 30	17 50	17 80	18 00	18 30	5 00

A Tape and Braid takes the same price as double Braid. A Tape and two Braids take the same price as triple Braid.

STRANDED CONDUCTORS.



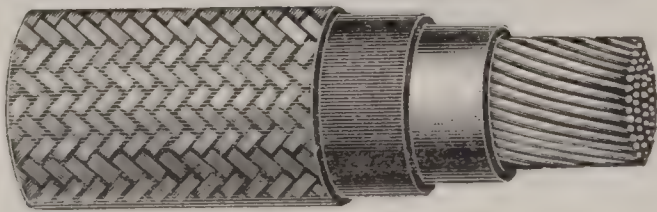
Price per 1000 feet, Single Braid.

Bars.

Size B. & S.	12c	13c	14c	15c	16c	17c	18c	Add for Double Braid.
0000	\$398 00	\$411 00	\$425 00	\$438 00	\$451 00	\$465 00	\$478 00	No Extra
000	334 00	344 00	355 00	365 00	376 00	387 00	397 00	No Extra
00	278 00	287 00	295 00	303 00	312 00	320 00	329 00	No Extra
0	234 00	240 00	247 00	254 00	260 00	267 00	274 00	No Extra
1	181 00	186 00	191 00	197 00	202 00	207 00	212 00	\$17 00
2	135 00	139 00	143 00	147 00	152 00	156 00	160 00	13 00
3	113 00	116 00	120 00	123 00	126 00	129 00	133 00	12 00
4	96 40	99 10	101 60	104 20	106 80	109 50	112 10	11 00
5	81 80	83 90	85 90	88 00	90 10	92 20	94 30	10 00
6	71 00	72 70	74 30	76 00	77 60	79 40	81 10	9 00
8	46 30	47 30	48 40	49 40	50 50	51 50	52 50	8 00
9	39 80	40 70	41 50	42 30	43 20	43 90	44 80	7 50
10	34 00	34 70	35 30	36 00	36 70	37 30	38 00	7 00
12	26 40	26 90	27 30	27 70	28 10	28 60	29 00	6 00
14	20 90	21 20	21 40	21 70	22 00	22 20	22 40	5 00

A Tape and Braid takes the same price as double Braid. A Tape and two Braids take the same price as triple Braid.

RUBBER COVERED WIRES AND CABLES.
STRANDED FEEDER CABLES.

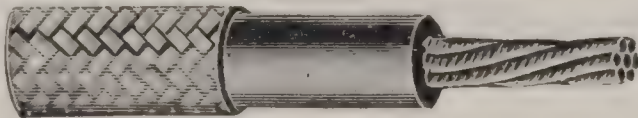


Price per 1000 feet.
Bars.

C. M.	12c	13c	14c	15c	16c	17c	18c	Add. for Each Extra Braid
2000000	\$2 966 00	\$3 092 00	\$3 218 00	\$3 344 00	\$3 470 00	\$3 596 00	\$3 722 00	\$69 00
1750000	2 623 00	2 733 00	2 843 00	2 953 00	3 064 00	3 174 00	3 284 00	66 00
1500000	2 284 00	2 379 00	2 473 00	2 568 00	2 662 00	2 757 00	2 851 00	62 00
1250000	1 964 00	2 042 00	2 121 00	2 200 00	2 279 00	2 357 00	2 436 00	58 00
1000000	1 576 00	1 639 00	1 702 00	1 765 00	1 828 00	1 891 00	1 954 00	52 00
950000	1 507 00	1 567 00	1 626 00	1 686 00	1 746 00	1 806 00	1 866 00	51 00
900000	1 435 00	1 492 00	1 549 00	1 606 00	1 662 00	1 719 00	1 776 00	50 00
850000	1 367 00	1 421 00	1 474 00	1 528 00	1 581 00	1 635 00	1 688 00	49 00
800000	1 296 00	1 346 00	1 397 00	1 447 00	1 497 00	1 548 00	1 598 00	48 00
750000	1 224 00	1 271 00	1 318 00	1 365 00	1 413 00	1 460 00	1 507 00	47 00
700000	1 154 00	1 198 00	1 242 00	1 287 00	1 331 00	1 375 00	1 419 00	46 00
650000	1 083 00	1 124 00	1 165 00	1 206 00	1 247 00	1 288 00	1 329 00	45 00
600000	1 016 00	1 053 00	1 091 00	1 129 00	1 167 00	1 205 00	1 242 00	44 00
550000	945 00	980 00	1 015 00	1 049 00	1 084 00	1 119 00	1 153 00	43 00
500000	850 00	882 00	913 00	945 00	976 00	1 008 00	1 039 00	40 00
450000	775 00	803 00	831 00	860 00	888 00	917 00	945 00	38 00
400000	701 00	727 00	752 00	777 00	802 00	827 00	853 00	36 00
350000	627 00	649 00	671 00	693 00	715 00	737 00	759 00	34 00
300000	554 00	573 00	592 00	611 00	629 00	648 00	667 00	32 00
250000	480 00	495 00	511 00	527 00	543 00	558 00	574 00	30 00
225000	445 00	459 00	474 00	488 00	502 00	516 00	530 00	28 00

FLEXIBLE STRANDED WIRE.

These Wires are made especially for dynamo leads, switch board work, and in all places where pliability is necessary.



Price per 100 feet, Single Braid.
Bars.

Size B. & S.	12c	13c	14c	15c	16c	17c	18c	Add. for Double Braid.
0000	\$437 80	\$452 10	\$467 50	\$481 80	\$496 10	\$511 50	\$525 80	No Extra
000	367 40	378 40	390 50	401 50	413 60	425 70	446 70	No Extra
00	305 80	315 70	324 50	333 30	343 20	352 00	361 90	No Extra
0	257 40	264 00	271 70	279 40	286 00	293 70	301 40	No Extra
1	199 10	204 60	210 10	216 70	222 20	227 70	233 20	\$17 00
2	148 50	152 90	157 30	161 70	167 20	171 60	176 00	13 00
3	124 30	127 60	132 00	135 30	138 60	141 90	146 30	12 00
4	106 04	109 01	111 76	114 62	117 48	120 45	123 31	11 00
5	89 98	92 29	94 49	96 80	99 11	101 42	103 73	10 00
6	78 10	79 97	81 73	83 60	85 36	87 34	89 21	9 00
8	50 93	52 03	53 24	54 34	55 55	56 65	57 75	8 00
9	43 78	44 77	45 65	46 53	47 52	48 29	49 28	7 50
10	37 40	38 17	38 83	39 60	40 37	41 03	41 80	7 00
12	29 04	29 59	30 03	30 47	30 91	31 46	31 90	6 00
14	22 99	23 32	23 54	23 87	24 20	24 42	24 64	5 00
16	19 91	20 02	20 24	20 35	20 57	20 79	20 90	4 00
18	16 72	16 83	16 94	17 05	17 16	17 27	17 38	3 80

A Tape and Braid takes the same price as double Braid. A Tape and two Braids take the same price as triple Braid.

RUBBER COVERED FIXTURE WIRES.

NATIONAL ELECTRICAL CODE STANDARD

SOLID CONDUCTOR, HEAVY INSULATION.



Price per 1000 feet.

Bars.

Size B. & S.	12c	13c	14c	15c	16c	17c	18c	Add for Double Braid.
14	\$16 80	\$17 00	\$17 30	\$17 50	\$17 80	\$18 00	\$18 30	\$5 00
16	13 50	13 70	13 80	14 00	14 20	14 30	14 50	4 00
18	11 70	11 80	11 90	12 00	12 10	12 20	12 30	3 80
19	10 80	10 80	10 90	11 00	11 10	11 20	11 20	3 60
20	9 80	9 90	10 00	10 00	10 10	10 10	10 20	3 40
22	8 90	8 90	9 00	9 00	9 00	9 10	9 10	3 20

STRANDED, HEAVY INSULATION.

Bars.

Size B. & S.	12c	13c	14c	15c	16c	17c	18c	Add for Double Braid.
14	\$20 90	\$21 20	\$21 40	\$21 70	\$22 00	\$22 20	\$22 40	\$5 00
16	18 10	18 20	18 40	18 50	18 70	18 90	19 00	4 00
18	15 20	15 30	15 40	15 50	15 60	15 70	15 80	3 80
19	13 80	13 90	13 90	14 00	14 10	14 20	14 30	3 60
20	12 30	12 30	12 40	12 50	12 50	12 60	12 60	3 40
22	11 40	11 50	11 50	11 50	11 60	11 60	11 70	3 20

A Tape and Braid takes the same price as double Braid. A Tape and two Braids take the same price as triple Braid.

OLD CODE.

SOLID CONDUCTOR, LIGHT INSULATION.

Price per 1000 feet.

Bars

No. B. & S.	12c	13c	14c	15c	16c	17c	18c
14	\$13 80	\$14 00	\$14 30	\$14 50	\$14 80	\$15 00	\$15 30
16	12 00	12 20	12 30	12 50	12 70	12 80	13 00
18	9 70	9 80	9 90	10 00	10 10	10 20	10 30
19	9 30	9 30	9 40	9 50	9 60	9 70	9 70
20	8 80	8 90	9 00	9 00	9 10	9 10	9 20
22	7 90	7 90	8 00	8 00	8 00	8 10	8 10

STRANDED, LIGHT INSULATION.

Bars.

No. B. & S.	12c	13c	14c	15c	16c	17c	18c
14	\$18 70	\$19 00	\$19 20	\$19 50	\$19 80	\$20 00	\$20 20
16	16 10	16 20	16 40	16 50	16 70	16 90	17 00
18	13 20	13 30	13 40	13 50	13 60	13 70	13 80
19	12 30	12 40	12 40	12 50	12 60	12 70	12 80
20	11 30	11 30	11 40	11 50	11 50	11 60	11 60
22	10 40	10 50	10 50	10 50	10 60	10 60	10 70

The Rubber and the Braid are each $\frac{1}{8}$ inch thick.

U. S. NAVY STANDARD RUBBER COVERED WIRE.

Single Conductor.

Approx. C. M.	Actual C. M.	No. of Wires in Strand.	Outside Diameter	Weight per 1000 feet.	Price Per 1000 feet.
4000	4107	1	11-32	66 lbs.	\$ 62 00
9000	9016	7	14-32	115 "	113 60
11000	11368	7	14-32	117 "	112 00
15000	14336	7	14-32	124 "	112 40
18000	18081	7	15-32	150 "	133 00
20000	22799	7	16-32	176 "	164 00
30000	30856	19	16-32	195 "	166 00
40000	38912	19	17-32	230 "	191 00
50000	49077	19	18-32	275 "	216 00
60000	60088	37	19-32	300 "	235 00
75000	75776	37	20-32	370 "	280 00
100000	99064	61	22-32	460 "	340 00
125000	124928	61	23-32	550 "	384 00
150000	157563	61	24-32	650 "	434 00
200000	199677	61	26-32	800 "	515 00
250000	250527	61	28-32	975 "	600 00
300000	296387	91	30-32	1150 "	700 00
375000	373737	91	33-32	1425 "	884 00
400000	413639	127	34-32	1560 "	970 00
500000	521589	127	38-32	2000 "	1220 00
650000	657606	127	42-32	2460 "	1460 00
800000	829310	127	46-32	3000 "	1730 00
1000000	1045718	127	50-32	3700 "	2100 00

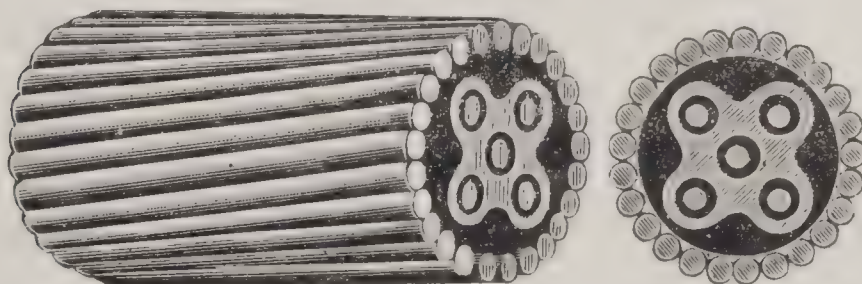
The Safety Seamless Navy Standard Wires, are used almost exclusively in all vessels of the U. S. Navy, and have also been installed in many of the warships of Russia, Turkey and Japan.

The exacting requirements of wire for naval vessels, due to the great internal heat from the fire room, and the constant dampness make it imperative that only the best material shall be used.

During the past twelve years, ninety-five per cent of all the Wire used by the United States Navy Department has been manufactured by the Safety Company.

SUBMARINE TELEGRAPH CABLE.

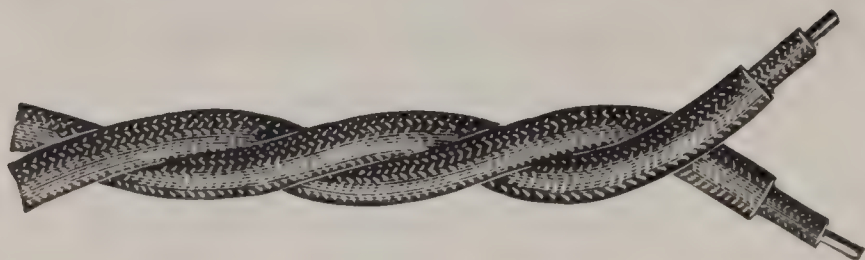
River and Harbor Use Only.



Number of Conductors.	Gauge of Conductor.	No. of Armorwires.	Gauge of Armor.	Outside Diameter.	Weight per 1000 feet.	Price per 1000 feet.
1	14 B. & S.	12	8 B. W. G.	7/8	1150	\$165 00
2	14 "	16	8 "	1 3/32	1675	286 00
3	14 "	14	6 "	1 1/4	2400	420 00
4	14 "	16	6 "	1 5/16	2750	550 00
5	14 "	19	6 "	1 3/8	3100	660 00
6	14 "	21	6 "	1 1/2	3500	750 00
7	14 "	21	6 "	1 5/8	3600	780 00
10	14 "	22	4 "	1 7/8	4600	980 00

We furnish, upon application, prices upon Submarine Cables for any Electrical Service.

RUBBER INSULATED TELEPHONE WIRES.



RUBBER INSULATED TELEPHONE AND TELEGRAPH CONDUCTORS.

Price per 1000 feet.

Style.	No. 20 B. & S.			No. 19 B. & S.			No. 18 B. & S.			No. 16 B. & S.		
	5'' 64	3'' 32	4'' 32	5'' 64	3'' 32	4'' 32	3'' 32	4'' 32	5'' 32	4'' 32	5'' 32	6'' 32
Plain, single Conductor.....	\$2 40	\$3 00	\$4 30	\$2 70	\$3 20	\$4 50	\$3 40	\$4 90	\$6 75	\$5 50	\$8 00	\$9 25
Braided, single Conductor.....	3 85	4 40	5 90	4 00	4 50	6 15	4 90	6 40	8 40	7 30	8 90	10 75
Duplex, Round.												
Plain, twisted.....	5 60	7 05	9 70	6 00	7 25	10 80	7 75	10 60	14 65	12 6'	16 80	19 15
Plain, twisted Braid over pair	7 10	8 45	11 22	7 60	8 75	11 61	9 23	11 25	15 62	14 00	16 85	21 00
Each braided, twisted	8 15	9 35	11 95	8 60	9 51	12 40	9 94	12 80	16 25	15 60	17 62	21 65
Each braided, twisted, Braid over all	10 72	12 00	15 12	11 60	12 90	15 58	12 75	15 65	19 45	17 80	21 00	25 25
Duplex, Flat.												
Plain, flat Braid over pair.....	6 30	7 45	10 15	7 74	7 73	10 40	8 10	10 90	14 35	12 10	15 85	19 50
Each braided, flat Braid over pair	7 75	11 00	14 05	10 20	11 29	14 45	11 65	14 55	18 60	15 90	20 00	24 00

TELEPHONE SWITCHBOARD WIRE AND CABLES.

Furnished in B. & S. size No. 22 single Conductors, in pairs or in cables. The Silk Wrap is next to the Wire with two Cotton Wraps over it, each winding being in reverse directions and saturated with Beeswax. These Cables are covered with an outer Braid filled with a Lead Color Fireproof Compound. Each pair of Conductors in the Cable can be of a distinguishing color if desired. Approximate length of Cable per pound. 11 pair, 11¼ feet. 21 pair, 6½ feet. 41 pair, 3¼ feet. 51 pair, 2½ feet.

List No.	Price.
9952 Single Conductor No. 22, one Silk and two Cotton Wraps, per pound.....	\$1 35
9953 Twisted Pair No. 22, one Silk and two Cotton Wraps, per pound	1 35
9954 Cable of Twisted Pairs, per pound.....	1 35

Different colors are used for each Conductor of Twisted Pairs. The single Conductor and Twisted Pairs are also extensively used as Jumper Wires.

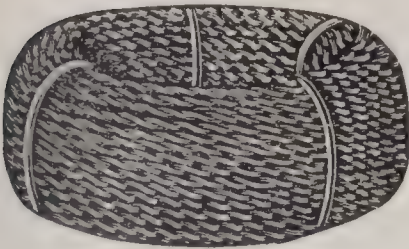
DESK TELEPHONE CABLES

This Cable is for battery work. The Strands are of Copper, not Tinsel, and are, therefore, of very low resistance. The Conductors are well Insulated. Each Conductor has a very fine silk thread through it as a tracer. The Cable is covered outside with a very fine Green Silk Covering, making it a very neat, compact and substantial Cable. It is made up from four to twenty Conductors.

List No.	Price.
3889 Per yard per Conductor	\$0 10

TELEPHONE SWITCHBOARD CORDS.

Single, double or triple Conductor, each Conductor composed of Tinsel and protected by two Wraps of Cotton and Braid of pure Linen; encased in a Brass Spiral, and heavily braided with polished Cotton or pure Linen of any standard color. The Braid is re-enforced at the Plug End, and the Cord finished for connection to Plug and Board.
Made in various lengths and types. With or without Tips. Prices on application.



FLEXIBLE INCANDESCENT LAMP CORD.

FOR DROP LIGHTS, BRACKETS, PORTABLES, ETC.

Conductor composed of Fine Wires, Insulated with Rubber and Braided Silk, or Cotton. Two Conductors, twisted, covered with Silk or Cotton Braid, in different colors or combination of colors.

New Code $\frac{1}{32}$ Rubber. Cotton Covered.

List No.	No.	22, per 1000 feet	Price
3815	No. 22,	per 1000 feet	\$15 00
3816	" 20,	" " "	18 00
3817	" 18,	" " "	21 00
3818	" 16,	" " "	27 00
3819	" 14,	" " "	40 00
3820	" 12,	" " "	62 00
3821	" 10,	" " "	95 00

Silk Covered.

3822	No. 22,	per 1000 feet	26 00
3823	" 20,	" " "	29 00
3824	" 18,	" " "	34 00
3825	" 16,	" " "	41 00
3826	" 14,	" " "	57 00
3827	" 12,	" " "	80 00
3828	" 10,	" " "	120 00

Old Code $\frac{1}{32}$ Rubber. Cotton Covered.

List No.	No.	22, per 1000 feet	Price.
3830	No. 22,	per 1000 feet	\$15 00
3831	" 20,	" " "	18 00
3832	" 18,	" " "	21 00
3833	" 16,	" " "	27 00
3834	" 14,	" " "	40 00
3835	" 12,	" " "	62 00
3836	" 10,	" " "	95 00

Silk Covered.

3837	No. 22,	per 1000 feet	26 00
3838	" 20,	" " "	29 00
3839	" 18,	" " "	34 00
3840	" 16,	" " "	41 00
3841	" 14,	" " "	57 00
3842	" 12,	" " "	80 00
3843	" 10,	" " "	120 00

SLOW BURNING OR FIRE PROOF LAMP CORD.

Cotton Covered.

List No.	No.	22, per 1000 feet	Price.
13430	No. 22,	per 1000 feet	\$15 00
13431	" 20,	" " "	18 00
13432	" 18,	" " "	21 00
13433	" 16,	" " "	27 00

List No.	No.	14, per 1000 feet	Price.
13434	No. 14,	per 1000 feet	\$40 00
13435	" 12,	" " "	62 00
13436	" 10,	" " "	95 00

REINFORCED SHOW WINDOW CORD.

Lamp Cord with extra Rubber Covering over regular Braid, and Cotton or Silk Braid over all.
Approved by Board of Fire Underwriters.

Cotton Covered.

List No.	No.	20 B. & S., per 1000 feet	Price.
3845	No. 20 B. & S.,	per 1000 feet	\$ 37 00
3846	" 18	" " "	43 00
3847	" 16	" " "	52 00
3848	" 14	" " "	65 00
3849	" 12	" " "	90 00
3856	" 10	" " "	120 00

Old Code. Cotton Covered.

13440	No. 20,	per 1000 feet	37 00
13441	" 18,	" " "	43 00
13442	" 16,	" " "	52 00
13443	" 14,	" " "	65 00
13444	" 12,	" " "	90 00
13445	" 10,	" " "	120 00

Silk Covered.

List No.	No.	20 B. & S., per 1000 feet	Price.
3850	No. 20 B. & S.,	per 1000 feet	\$ 57 00
3851	" 18	" " "	65 00
3852	" 16	" " "	76 00
3853	" 14	" " "	98 00
3854	" 12	" " "	130 00
3855	" 10	" " "	170 00

Old Code. Silk Covered.

13446	No. 20,	per 1000 feet	51 00
13447	" 18,	" " "	65 00
13448	" 16,	" " "	76 00
13449	" 14,	" " "	98 00
13450	" 12,	" " "	130 00
13451	" 10,	" " "	170 00

CANVASITE CORD.

For Connections to Portable Lights, Motors, Fans, Etc.

Canvasite Cord is made of two Twisted Conductors, each composed of fine Copper Wires, Cotton Wound and heavily covered with Rubber. Around the twisted Conductors is woven a heavy Canvas Braid, producing a Cord of great strength and durability.

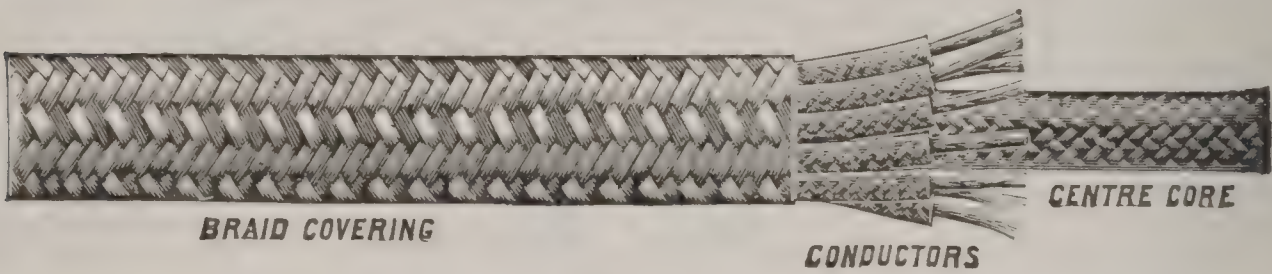
List No.	No.	18 B. & S., Per 1000 feet	Price.
9925	No. 18	B. & S., Per 1000 feet	\$38 60
9926	" 16	" " "	45 00
9927	" 14	" " "	58 74
9928	" 12	" " "	74 14
9938	" 10	" " "	94 60
9939	" 8	" " "	126 28

TWO CONDUCTOR JUTE OR STAGE
CABLE.

Each Conductor of this Cable is composed of fine Strands, and is Insulated with $\frac{3}{8}$ Rubber and Braided Conductors, then twisted and filled with Jute to make round, and a Cotton Braid well saturated, over all. This Cable is in use in breweries, mines and slaughter-houses where a cable that will stand rough usage and dampness is necessary. This Cable is approved by Board of Fire Underwriters.

List No.		Price.	List No.		Price.
13454	No. 18, per 1000 feet.....	\$50 82	13458	No. 10, per 1000 feet.....	\$110 00
13455	" 16, " " "	58 30	13459	" 8, " " "	143 90
13456	" 14, " " "	69 70	13460	" 6, " " "	206 80
13457	" 12, " " "	87 30			

ELEVATOR CABLES FOR ANNUNCIATORS.



This type of Cable is designed for connecting the movable elevator car with the signal buttons upon the different floors, and is constructed with the greatest amount of strength and flexibility.

List No		Price.	List No.		Price.
9942	4 Cond. for 3, No. Annun. per ft.	\$0 15	9947	9 Cond. for 8, No. Annun. per ft.	\$0 32
9943	5 " 4, " " " ..	18	9948	10 " 9, " " " ..	36
9944	6 " 5, " " " ..	20	9949	11 " 10, " " " ..	40
9945	7 " 6, " " " ..	24	9950	12 " 11, " " " ..	44
9946	8 " 7, " " " ..	28	9951	13 " 12, " " " ..	48

ELEVATOR CABLES FOR LIGHTING PURPOSES.

These Cables are fire and waterproof and are made with the two Copper Conductors flexible and with two Steel Lateral Supports. Approved by Board of Fire Underwriters.

List No.		Price.
3805	No. 14 Elevator Cable, per foot.....	\$0 15

COTTON SLEEVING.

For Electrical Purposes.

List No.	Mfrs. No.	B. & S.	Yards per lb.	Price Per lb.
13462	0	For No. 14, 16	450.....	\$0 80
13463	1	" 11, 12, 13	280.....	80
13464	2	" 7, 8, 9	180.....	80
13465	3	" 9, 10	230.....	80
13466	4	" 5, 6, 7	260.....	80
13467	5	" 5	145.....	80
13468	6	" 3, 4	140.....	80
13469	7	" 3, 4	130.....	80
13470	8	" 1, 2	100.....	80
13471	9	" 1, 2	110.....	80
13472	10	" 1, 0	70.....	80
13473	11	" 1, 0	60.....	80
13474	12	" 3, No. 0 Wire.	79.....	80
13475	13	" 6, 7	155.....	80

Number 4 can be furnished in Red, Blue, or Black at same price.

PAPER INSULATED LEAD ENCASED
TELEPHONE CABLES.

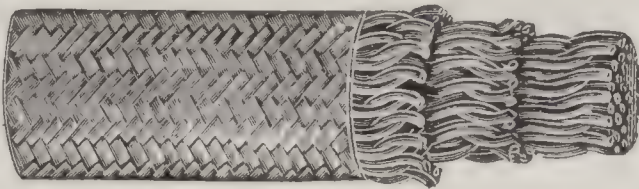
SPECIFICATION PAPER INSULATED TELEPHONE CABLES.



Prices on application.

No. Pairs.	Thickness of Lead.	Outside Diameter.	Weight per foot.		
			No. 22 B. & S.	No. 20 B. & S.	No. 19 B. & S.
5	1-16	.500	7½ oz.	8 oz.	9 oz.
10	"	.565	9 "	10 "	11 "
13	"	.675	10 "	11 "	12 "
15	"	.7	11 "	12 "	13 "
20	5-64	.775	14½ "	16 "	17½ "
25	"	.85	16½ "	18 "	19½ "
30	"	.910	18 "	20 "	22 "
40	3-32	1.1	28 "	30 "	32 "
50	"	1.25	34 "	36 "	38 "
60	"	1.4	37 "	40 "	43 "
75	"	1.6	40 "	44 "	48 "
100	"	1.75	44 "	50 "	56 "
125	"	1.87	51 "	58 "	65 "
150	"	1.95	58 "	66 "	74 "

RUBBER INSULATED TELEPHONE CABLES.

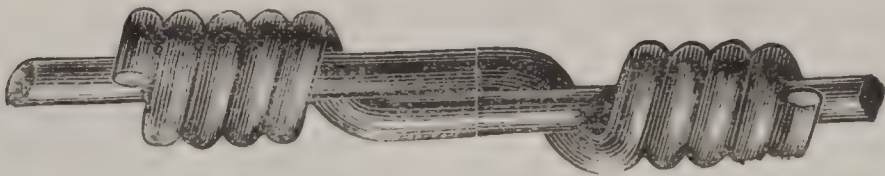


Plain, Rubber Insulated Wires, twisted in pairs and covered with Saturated Tape and Braid.
Price per 100 feet.

No. Pairs.	Conductors No. 20 B. & S. 3-32 ins.	Conductors No. 19 B. & S. 3-32 ins.	Conductors No. 18 B. & S. 3-32 ins.	Conductors No. 18 B. & S. 4-32 ins.	Conductors No. 16 B. & S. 4-32 ins.
2	\$5 94	\$6 20	\$6 60	\$7 50	\$8 58
3	8 91	9 30	9 90	11 38	12 87
4	9 90	10 35	12 10	13 66	15 44
5	12 37	12 93	13 75	15 08	17 16
6	14 85	15 50	16 50	18 20	20 59
7	15 25	15 85	17 35	19 59	21 02
8	17 32	18 25	19 25	21 20	23 75
10	21 65	22 62	23 75	25 95	29 34
12	25 98	27 19	28 26	31 15	35 21
14	27 50	28 25	32 92	36 34	41 06
15	29 70	31 02	35 27	38 93	44 01
16	31 68	33 09	37 62	41 53	46 95
18	35 63	37 22	42 82	45 22	52 82
20	39 60	41 36	44 50	47 47	55 32
25	49 50	51 70	53 75	59 34	67 08
30	59 42	62 05	64 50	70 20	80 49
40	79 22	82 72	86 00	94 94	107 28
50	99 00	103 40	107 50	118 68	134 16

DOUBLE GALVANIZED TELEGRAPH AND

TELEPHONE WIRES.



These Wires are regularly made in three qualities, commonly known as Extra Best Best (E. B. B.) Best Best (B. B.) and Steel (steel).

Extra Best Best Wires are made from a special stock of great purity, producing Wire of uniform quality in which the elements of softness and elongation are combined with low electrical resistance to a marked degree. They are largely employed in long lines or service where low electrical resistance is both desirable and necessary.

Best Best Wires are made from a stock of high quality, producing a Wire somewhat less uniform and of higher resistance than E. B. B., but of greater tensile strength. It is very generally employed in electrical work.

Steel Wires, as indicated by their name, are designed for work where conductivity or electrical resistance is of less importance than a high standard of tensile strength.

Number, Diameter Roebbling Gauge.	inches.	Weight in pounds per mile	Put up in bundles of	Approximate breaking strain in pounds.			Average resistance in Ohms at 68° F.			Price List Cents per pound.		
				E.B.B.	B.B.	Steel	E.B.B.	B.B.	Steel	E.B.B.	B.B.	Steel
4	.225	730	1/4 mile.	2190	2409	2701	6.44	7.53	8.90	10 1/4	9	7
6	.192	540	1/3 "	1620	1782	1998	8.70	10.19	12.04	10 1/4	9	7
8	.162	380	1/2 "	1140	1254	1406	12.37	14.47	17.10	10 1/4	9	7
9	.148	320	1/2 "	960	1056	1184	14.69	17.19	20.31	10 1/4	9	7
10	.135	260	1/2 "	780	858	962	18.08	21.15	25.00	10 1/2	9 1/4	7 1/4
11	.120	214	1/2 "	642	706	792	21.96	25.70	30.37	10 1/2	9 1/4	7 1/4
12	.105	165	1/2 "	495	545	611	28.48	33.33	39.39	10 3/4	9 1/2	7 1/2
14	.080	96	1/2 "	288	317	355	48.96	57.29	67.71	11 1/4	10	8
16		62	1 "								15	

Special prices quoted on large quantities on application.

WEATHERPROOF INSULATED GALVANIZED IRON TELEPHONE

AND TELEGRAPH WIRE.

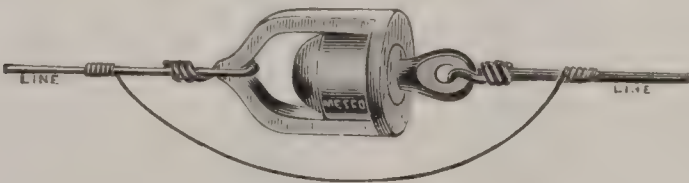
Extra Best Best, or Best Best Quality.

Price per mile.

Size B.W.G.	B.B. Double Braid.	B.B. Triple Braid.	E.B.B. Double Braid.	E.B.B. Triple Braid.	Size B.W.G.	B.B. Double Braid.	B.B. Triple Braid.	E.B.B. Double Braid.	E.B.B. Triple Braid.
4	\$67 00	\$74 00	\$74 00	\$81 00	10	\$37 00	\$41 00	\$39 00	\$43 00
6	57 00	62 00	62 00	67 00	11	31 00	35 00	34 00	38 00
8	46 00	50 00	50 00	54 00	12	27 00	31 00	30 00	34 00
9	42 00	46 00	45 00	49 00	14	25 00	29 00	26 00	30 00

THE ANTI-HUM.

Humming of Telegraph Wires easily and cheaply remedied.



List No.

4793 Anti-Hum

Price.

\$0 25

FLEXIBLE CONDUCTING CORDS.

COPPER CONDUCTING CORDS. Single Conductor.



Composed of 16 No. 33 Wires with Green or Red Silk Braid Cover.
List No. Price.
3865 Per yard \$0 10



Composed of 16 No. 31 Wires with Green or Red Silk Braid Cover.
List No. Price.
3866 Per yard \$0 12

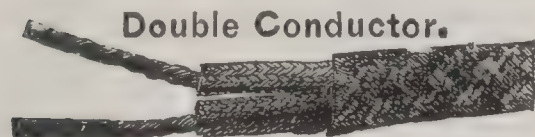


Composed of 4 No. 32 Wires wound Spirally on a small Cotton Centre with outer Cover of Green Cotton Braid.
List No. Price.
3873 Per yard \$0 06

Extra Heavy for Test Sets, Rheostats, etc.



Composed of 50 No. 32 Wires with Green and Yellow Silk Braid Cover.
List No. Price.
3875 Per yard \$0 35



Double Conductor.

Two Conductors, each have 5 No. 30 Wires with Cotton Braid laid together flat, with outer Braid of Green Silk.
List No. Price.
3867 Per yard \$0 12

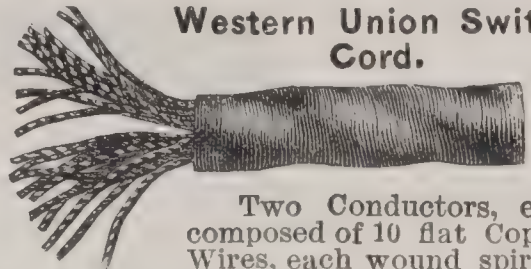


Two Conductors, each have 16 No. 33 Wires with Cotton Braid laid together flat with outer Braid of Green or Red Silk.
List No. Price.
3868 Per yard \$0 20

Two Conductors, each have 30 No. 33 Wires with Cotton Braid laid together flat with outer Braid of Green or Red Silk.
List No. Price.
3869 Per yard \$0 30

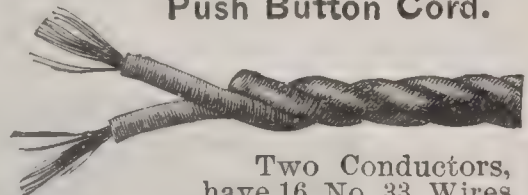
Two Conductors, each have 60 No. 33 Wires with Cotton Braid laid together flat, with outer Braid of Green or Red Silk.
List No. Price.
3870 Per yard \$0 36

Western Union Switch Cord.



Two Conductors, each composed of 10 flat Copper Wires, each wound spirally on a Cotton Thread, laid together and each Conductor heavily wrapped with Silk and covered with heavy Green Silk.
List No. Price.
3874 Per yard \$0 50

Push Button Cord.

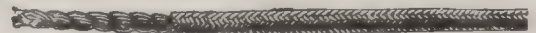


Two Conductors, each have 16 No. 33 Wires with Lateral Cotton Threads and Silk Wrap, twisted together with a third Strand of the same, but not containing the Wires. Covered with Green, Red or Blue Silk.
List No. Price.
3877 Per yard \$0 20

Triple Conductor.

Three Conductors, each have 5 No. 30 Wires with Cotton Braid laid together and with Cover of Green Silk.
List No. Price.
3885 Per yard \$0 20

TINSEL, SINGLE CONDUCTOR.



Composed of 24 Threads of Gilt Tinsel, covered with Green or Red Silk Braid,
List No. Price.
3880 Per yard \$0 15

Medical Battery Cord.

One Conductor, 18 Strands of Gilt Tinsel and 4 No. 36 Copper Wires twisted together with Cotton and Worsted Braid, Red or Green.
List No. Price.
3886 Per yard \$0 15

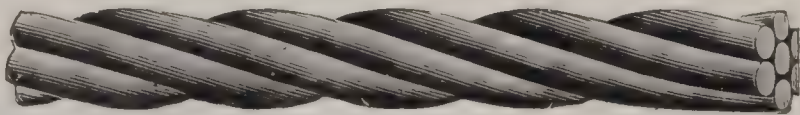


One Conductor, 18 Strands of Gilt Tinsel and 3 No. 36 Copper Wires twisted together with Red or Green Worsted Braid.
List No. Price.
3878 Per yard \$0 08

Two Conductors, each have 24 Threads Gilt Tinsel covered with Cotton Braid, 1 Red and 1 Blue, with an outer Braid of Blue or Red Worsted.
List No. Price.
3879 Per yard \$0 15

Two Conductors, each have 24 Threads of Gilt Tinsel, laid flat with Red or Green Silk outer Braid.
List No. Price.
3881 Per yard \$0 25

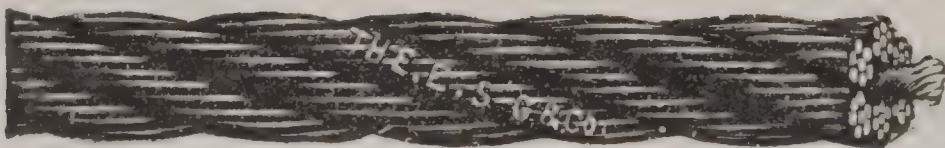
GALVANIZED STEEL STRAND.



FOR GUYS.

List No.	7 Wires, No.	Approx. Diameter.	Approx. Weight per 100 ft.	Strength in Pounds.	Price.
3890	8	1/8 inch.	52 lbs.	10,000.....	per 100 feet, \$3 15
3892	11	3/8 " "	30 " "	5,000.....	" " 2 00
3893	12	1/2 " "	22 " "	3 825.....	" " 1 60
3894	15	3/4 " "	11 " "	1,750.....	" " 1 15

GALVANIZED AND ANNEALED ARC LAMP CORDAGE.



Composed of 9 Strands and a Cotton Centre, 4 Wires to the Strand.
For Use With Pulleys.

List No.	Diameter.	Breaking Strain in lbs.	Price.
3900	3/8 inch.	2,300 lbs.....	per 100 feet, \$5 00
3901	1/2 inch.	1,700 lbs.....	" " 3 50
3902	3/4 inch.	1,100 lbs.....	" " 2 75

SAMSON ARC LAMP CORDAGE.



For Use in Raising or Lowering Arc Lamps. For Trolley Rope, etc.

List No.	Diameter.	Price.	List No.	Diameter.	Price.
3903	7/8 inch.....	per lb., \$0 80	3905	1/2 inch.....	per lb., \$0 80
3904	1 inch.....	" 80	3906	3/4 inch.....	" 80

HEMP ROPE FOR PULLEYS.

Extra Strong and Durable.

List No.	Size.	Price.	List No.	Size.	Price.
9931	Size, 5/8 inch.....	per lb., \$1 00	9933	Size, 3/8 inch.....	per lb., \$1 00
9932	" 1/2 "	" 1 00			

MARLIN, 2 AND 3 PLY.

Thoroughly Saturated with Weatherproof Compound. Extensively
Used for Hanging Cables. Put up in 10 lb. Coils.

List No.	Price.	List No.	Price.
9934 2 Ply, 1/8 inch Diameter	per lb. \$0 25	9935 3 Ply, 3/8 inch Diameter	per lb. \$0 25

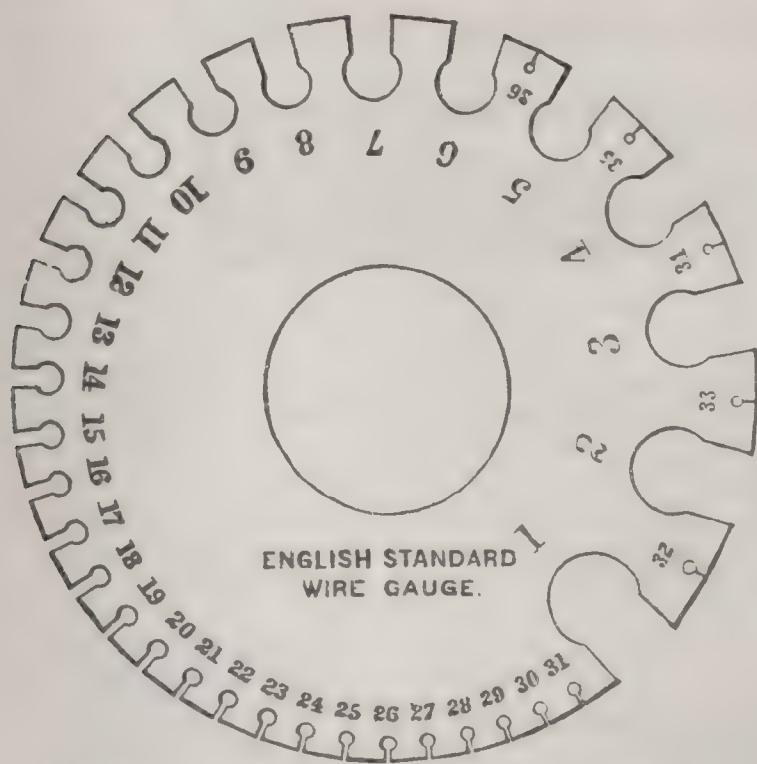
STEEL "FISHING" WIRE.

List No.	Price.
4670 Steel Snake Wire, 3/8 inch wide, for Fishing, Flexible Conduit.....	per lb. \$0 70
9936 Steel Snake Wire, 1/8 inch wide, for Fishing, Iron Conduit.....	" 70
9937 Steel Snake Wire, 1/4 inch wide, for Fishing, Iron Conduit.....	" 70

Steel Snake Wire is put up in 100 foot Coils.

No. 4670 weighs approximately, 1 lb. 13 oz. per Coil. No. 9936 weighs approximately, 2 lbs. per Coil.
No. 9937 weighs approximately, 3 lbs. per Coil.

ENGLISH STANDARD WIRE GAUGE. AMERICAN STANDARD WIRE GAUGE.

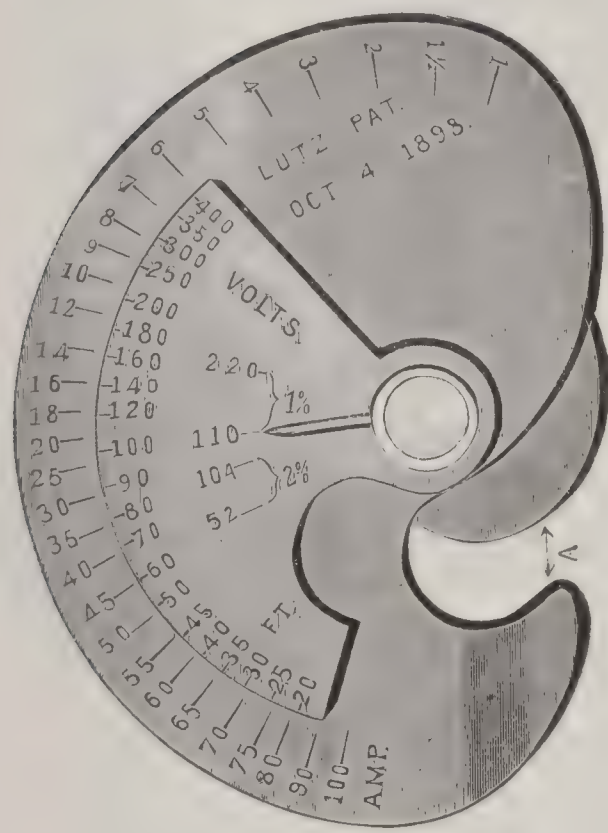


List No.	Price.
4795 Range from 1 to 36.....	\$4 00
4796 " " 5 to 36.....	2 00

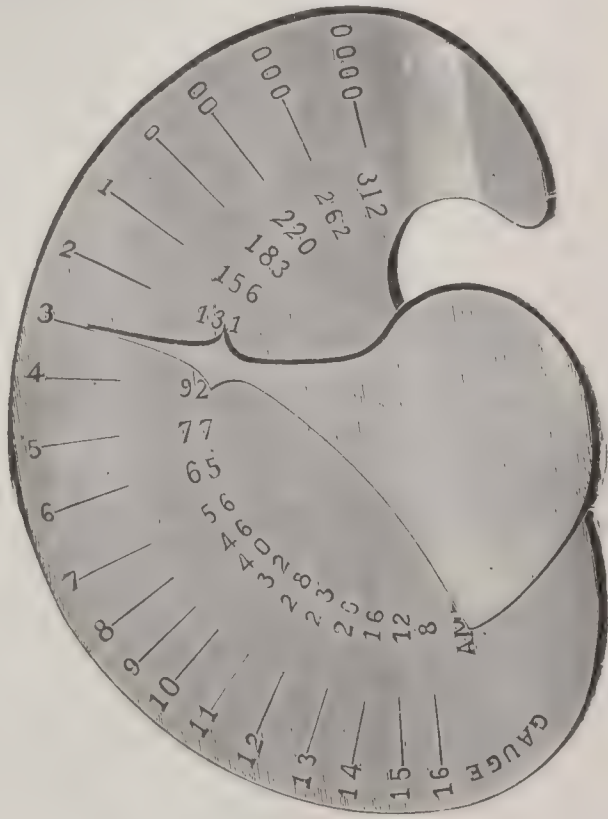


List No.	Price.
4797 Range from 5 to 36.....	\$4 00
4798 " " 0 " 36.....	5 00

U. S. WIREMAN'S CALCULATING GAUGE.



ON THIS SIDE set the required number of feet on the small circle opposite the required number of amperes on the large circle, then set the small pointer at the required voltage and loss.

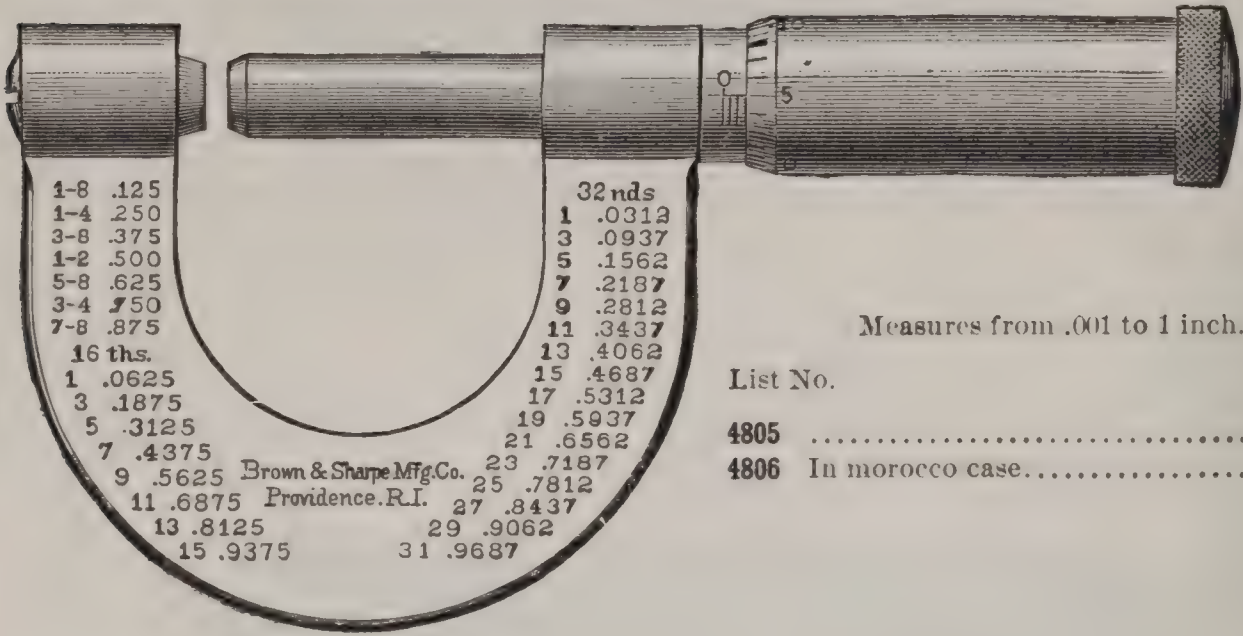


AND ON THIS SIDE the large pointer will indicate the required size of wire in Brown & Sharpe's gauge, and will also indicate the safe carrying capacity, while the wire may be gauged by the slot A.

Made of Best Material, Nickel-plated, Accurately Fitted.

List No.	Price.
4799 Each.....	\$2 00

MICROMETER CALIPER.

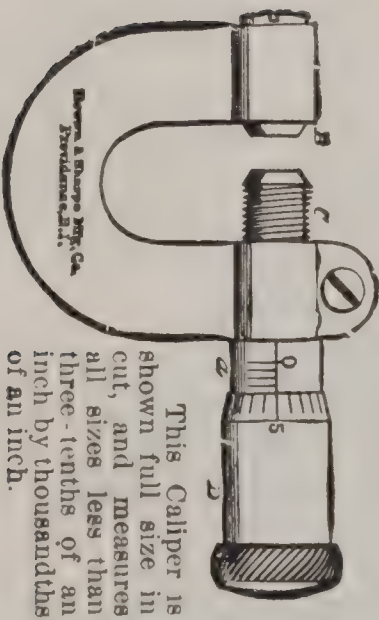


Measures from .001 to 1 inch.

List No.	Price.
4805	\$5 00
4806 In morocco case.	5 75

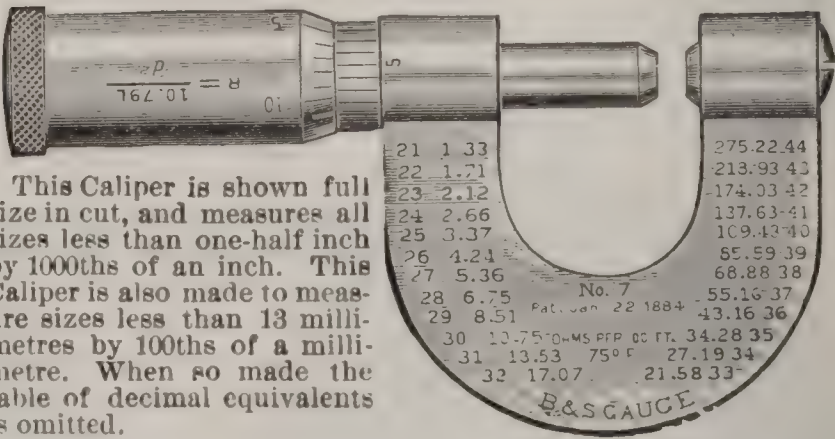
Micrometer Caliper.

English or Metric Measure.



This Caliper is shown full size in cut, and measures all sizes less than three-tenths of an inch by thousandths of an inch.

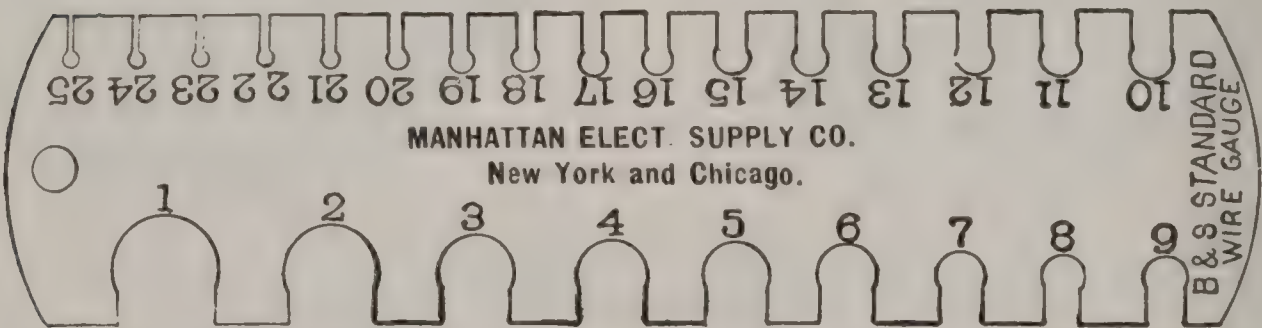
This Caliper is shown full size in cut, and measures all sizes less than one-half inch by 1000ths of an inch. This Caliper is also made to measure sizes less than 13 millimetres by 100ths of a millimetre. When so made the table of decimal equivalents is omitted.



List No.	Price.
4807 Nickel-plated	\$4 00
4808 In morocco case.	4 50

List No.	Price.
4809 Nickel-plated.	\$4 50
4810 With Ratchet Stop.	5 00
4811 Morocco case.	50

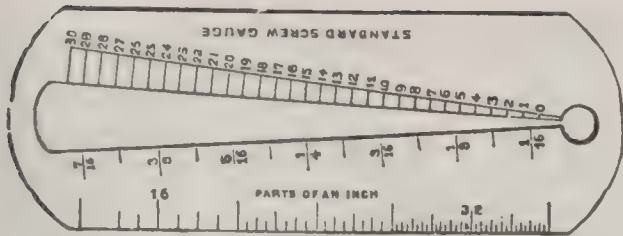
ELECTRICIANS WIRE GAUGE.



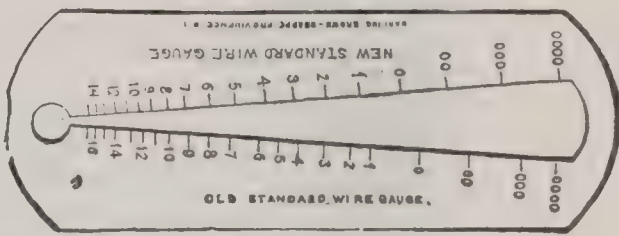
This Gauge contains 25 sizes, from No. 1 to No. 25, which embraces all that is needed in the general run of work, and its size, which is one inch wide and four inches long, makes it convenient for the pocket. The Gauge is hardened, and carefully and accurately made

List No.	Price.
4817 Wire Gauge, each	\$1 00

POCKET SCREW AND WIRE GAUGE.



FRONT SIDE.

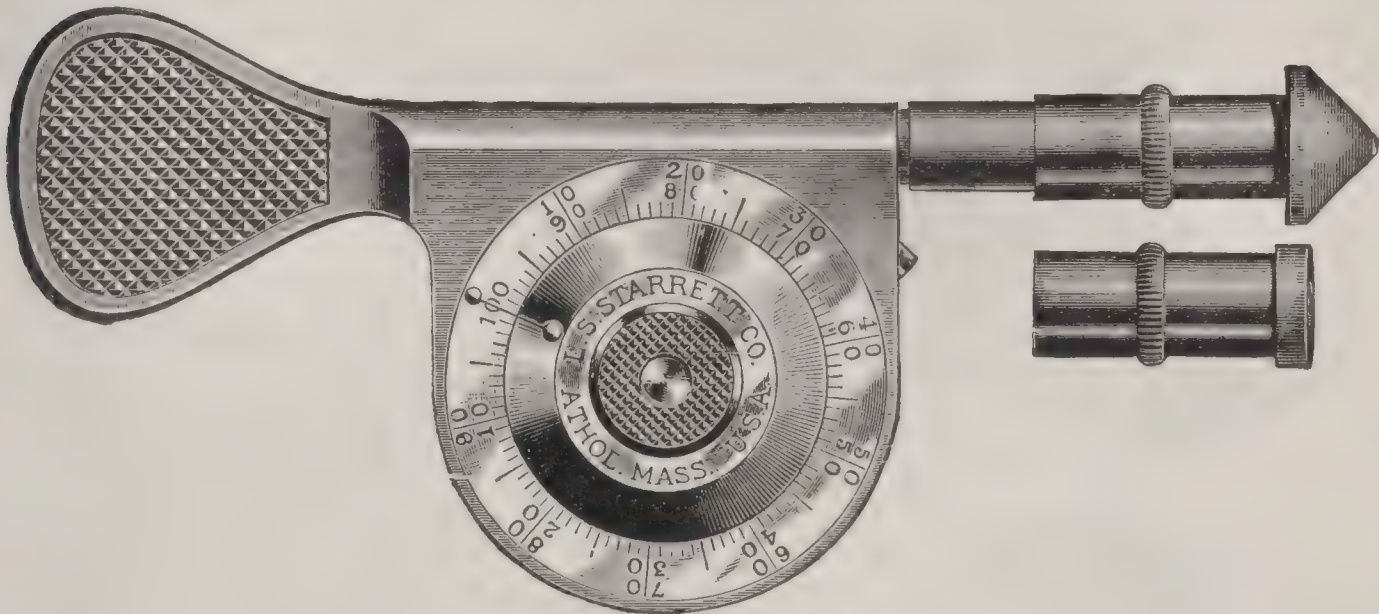


REVERSE SIDE.

For determining all sizes and lengths of screws, and all sizes of wire from No. 0000 to 17 by both American and English wire gauges.

List No	Price.
4812	\$2 50

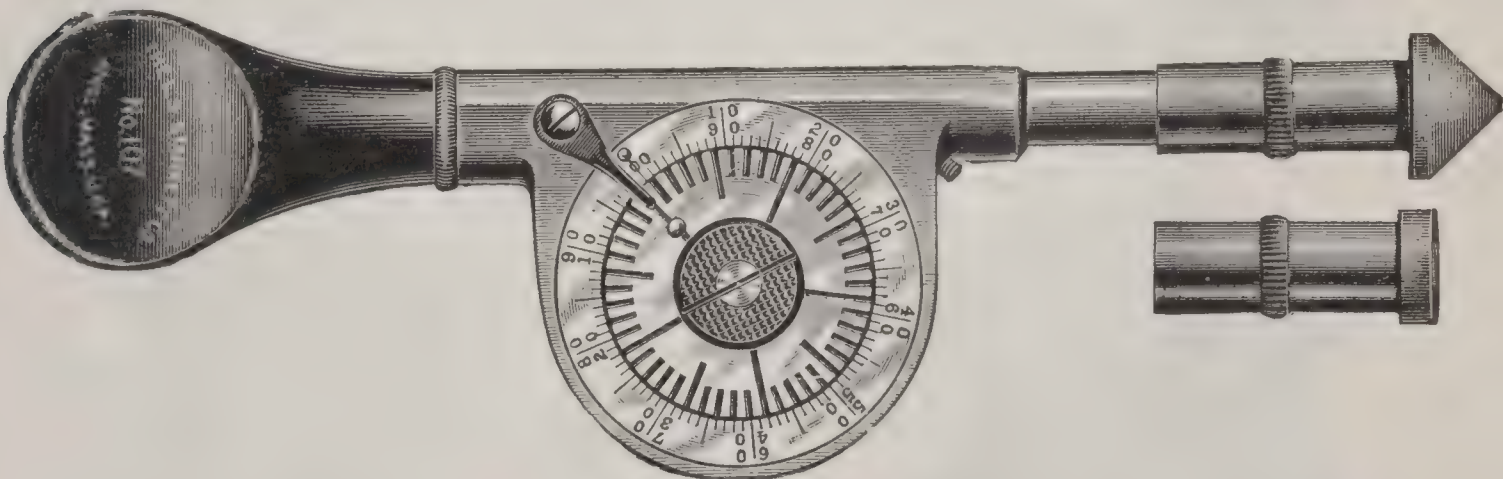
STARRETT'S HIGH SPEED INDICATORS.



List No. 4813.

This Indicator may be run at the highest speed required without heating, and this on account of our frictionless bearing against which the inner end of the spindle revolves.

List No.	Price.
4813 In Pasteboard box.....	\$2 00
4814 In Leatherette case.....	3 00

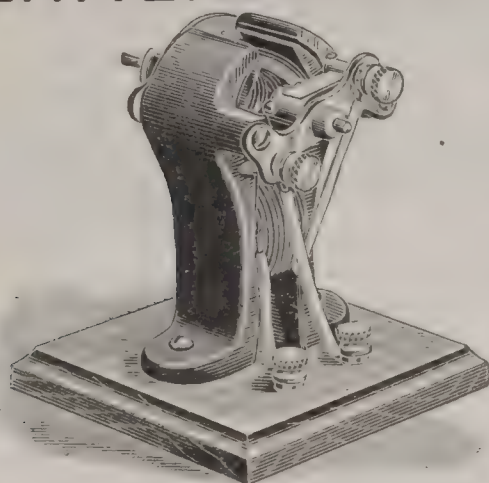


List No. 4815.

This instrument was devised to automatically register hundreds as well as units and tens, and thus relieve the mind from keeping tally; also to furnish a better registering indicator at a more reasonable cost than heretofore. The instrument will register 5,000 revolutions.

List No.	Price.
4815 In Pasteboard box.....	\$3 00
4816 In Leatherette case.....	3 50

BATTERY MOTORS FOR FANS AND POWER.

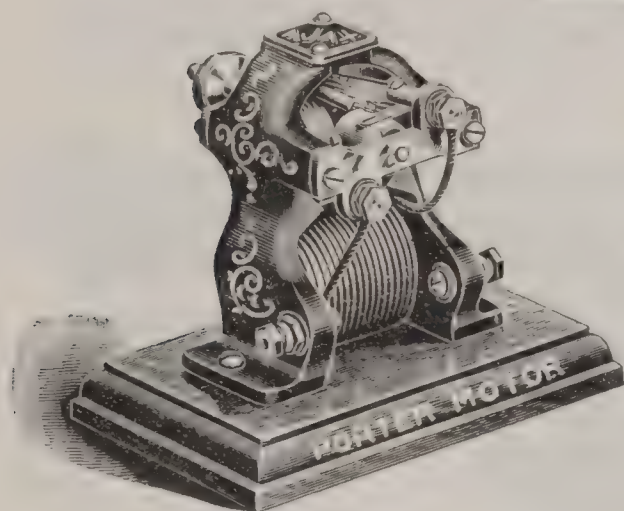


List No. 3580

THE GEM BATTERY MOTOR.

The Gem Motor, finished in black enamel, screws and bearings nickel-plated, mounted on polished wood stand. Used for operating small mechanical toys and advertising devices; runs on a single cell dry battery.

List No.	Price.
3580 As per cut.....each,	\$1.00
3581 With 3½ inch Fan.....	1.15

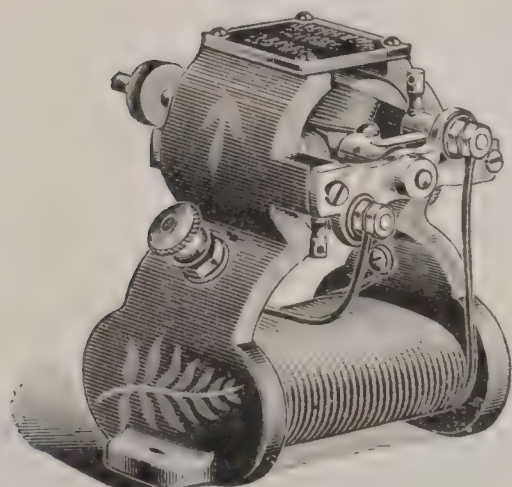


List No. 3575

AJAX PORTER MOTOR.

Will run on one cell of battery. Black enamel with nickel trimmings. Weight, one pound.

List No.	Price.
3575 Without Fan.....	\$1.50
3576 With 4¾ inch Fan.....	1.75

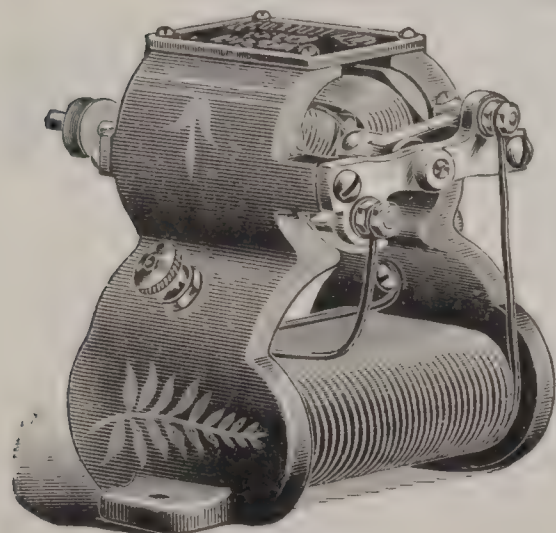


List No. 3582

STANDARD PORTER MOTOR.

This size will run on one cell of battery. For more power use two. Size, 3½ inches square. Weight, 1½ lbs. Black enamel with nickel trimmings.

List No.	Price.
3582 Complete, without Fan.....	\$3.00
3583 Complete, with 4¾ inch Fan..	3.25



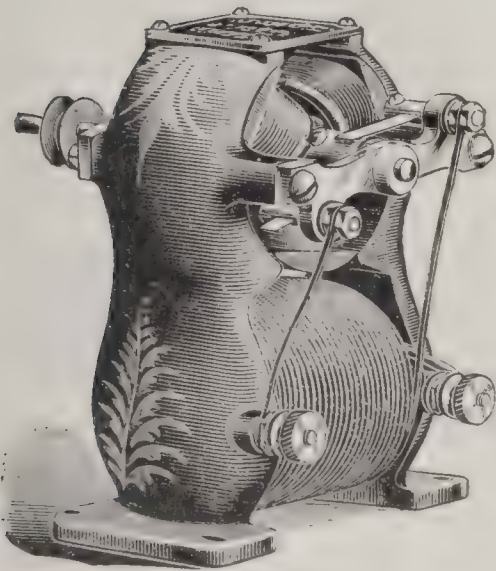
List No 3584

STANDARD PORTER MOTOR.

This is larger and more efficient than No. 3582. Will run on two cells of battery. Black enamel and brass trimmings. Weight, 2¾ lbs. 2,800 revolutions per minute.

List No.	Price.
3584 Complete, without Fan....	\$5.00
3589 Series wound.....	5.75
3594 5½ inch Fan, extra .....	.50

BATTERY MOTORS FOR FANS AND POWER.

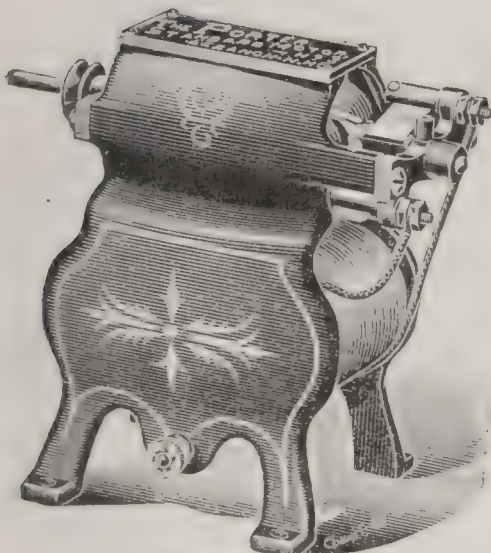


List No. 3577.

STANDARD PORTER MOTOR.

This Motor is used to operate slot machines and small devices. Small and powerful. Weight, $3\frac{1}{2}$ pounds. Width of Base, $3\frac{1}{2}$ inches. Height, $4\frac{3}{8}$ inches. Length of Shaft, $3\frac{1}{2}$ inches. 6 Volts. 2 Amperes. 2400 R. P. M., with average load.

List No.	Price.
3577 Complete, without Fan.....	\$6 00
3578 Complete, for series	6 75
3579 6-inch Fan, extra	75



List No. 3550.

STANDARD PORTER MOTOR.

This Motor is suitable for running small mechanical devices requiring a light power. It is finished in Black Enamel and decorated. Clears an 8-inch Fan. Weight, $6\frac{1}{2}$ pounds. Length of Shaft, $5\frac{1}{2}$ inches. Height, $5\frac{1}{2}$ inches. Width, 4 inches. 6 Volts. 1.6 Amperes. 1800 R. P. M., with average load.

List No.	Price.
3550 Complete, without Fan.....	\$10 00
3551 Complete, for series.....	11 00
3552 8-inch Fan, extra	1 00

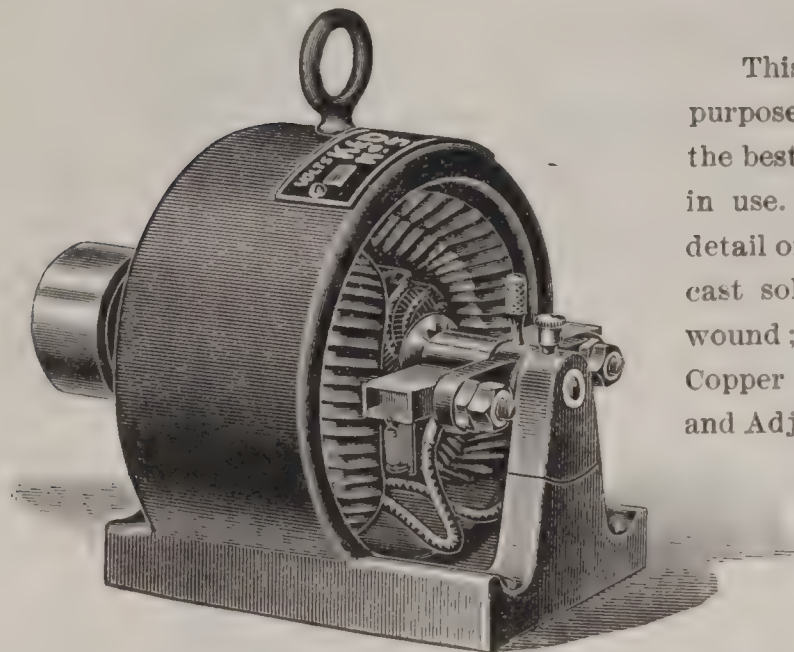


KENT DYNAMO OR MOTOR.

This Apparatus is built to run either as a Dynamo or Motor, the only difference being in the Binding Posts used, and the direction in which the Armature runs; it is fitted with Drum Armature and has a Two Score Pulley and Self-Feeding Woven Wire Brushes, finished in Black Enamel and Nickel; as a Motor it will do any work requiring less power than a sewing machine, and as a Dynamo it will light from 1 to 10, 3 Candle Power Lamps, as a Dynamo from 2 to 12 Volts, its capacity is about 2 amperes. As a Motor on a 6 Volt circuit it consumes 1.5 Amperes. Speed, 1800 R. P. M with average load. Weight, 8 pounds. Length of shaft, $5\frac{1}{2}$ inches. Height, 6 inches. Base, $5 \times 5\frac{1}{2}$ inches.

List No.	Price.
13478 Complete.....	\$10 00

SMALL DYNAMOS AND MOTORS.



KENDAVIS MOTOR.

This Battery Motor is designed for power purposes. Its design and construction embody the best practice common to the larger machines in use. Attention has been devoted to the detail of each part. The Field is of the ring type cast solid with the Frame ; Coils are form wound ; 6 Section Laminated Drum Armature ; Copper Commutator ; improved Brush Holders and Adjustable Yoke. These features combined, result in a very satisfactory Motor. Finished in Black Enamel. 6 Volts. 2 Amperes. Speed, 1800 R. P. M., with average load. Length of shaft, 6 inches. Width, 4¾ inches. Height,

6 inches. Diameter of Pulley, 1½ inches ; width, ¾ inch.

List No.	Price.
1017 Battery Motor, complete	\$8 00

KENDAVIS GENERATOR.

This Generator is identical in design with Motor illustrated above, but is shunt wound to obtain the best results as a Generator. It is particularly adapted for experimental purposes requiring a small amount of current. It will light brilliantly 12 6-Volt 3-Candle Power Lamps. As an Electro-Plating machine it will operate a 5-gallon solution successfully. There are also many other uses to which this machine may be applied.

The Brush-Holders are of an improved type and brushes require very little attention : the Armature is Slot-Wound and Laminated. In fact, the most desirable and efficient features common to the larger Generators are retained in this little machine. It has an output of 36 Watts. Finish, black enamel. Speed, 1800 R. P. M. 6 Volts. 6 Amperes. Length of shaft, 6 inches. Width, 4¾ inches. Height, 5½ inches. Diameter of pulley, 1½ inches ; width, ¾ inch.

List No.	Price.
1018 Generator, complete	\$8 00



THE WONDER DYNAMO MOTOR.

This little Machine can be used for either a Dynamo or Motor and as a Generator it has an output of 12 Watts ; is wound for either 4, 6, 8 or 10 Volts. It will light lamps, run motors, explode Gas, decompose water, etc. As a Motor it will operate on one Cell of Dry Battery when running light. Weight, 4 lbs. Height, 4½ inches. Length of shaft, 5¼ inches. Has Brass Bearings, Turner Steel Shaft. Drum Armature Laminated Type. Eight Section Commutator and Copper Brushes. All parts are finely finished and polished, mounted on polished Oak Base.

List No.	Price.
13479 Wonder Dynamo Motor	\$4 50

SMALL MOTORS AND DYNAMOS.



THE WONDER ALTERNATOR.

This little Machine will furnish current both direct and alternating at the same time, and it is so simple that any one can understand its principles.

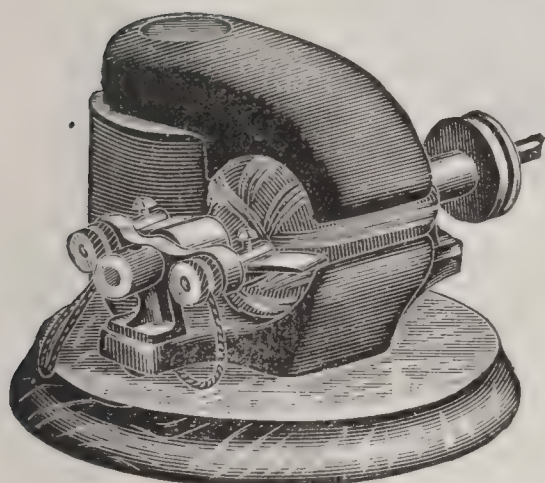
It is very desirable from the fact that more extensive and advanced experiments can be performed with the alternating current, such as transforming the current from one potential to another by induction. Output 12 Watts.

Wound for either 4, 6, 8 or 10 Volts. As a Motor it is very efficient and running light it will operate on one Cell of Dry Battery and with increased power if more Batteries are used.

Weight, $4\frac{1}{2}$ pounds. Brass Bearings, Steel Shaft, Eight Section Commutator and Laminated Drum Armature. All parts are finished and polished and Machine is mounted on polished Oak Base.

List No.	Price.
13480 Wonder Alternator, complete.....	\$6 50

SMALL DYNAMOS.



"The Midget" Dynamo or Motor.

Weight, $4\frac{3}{4}$ pounds. Speed about 3500. Output, 6 Watts. Wound for 4, 8 or 10 Volts.

The Midget is a substantial little Machine. It will run equally well as a Motor or Dynamo. It may be run as a Motor by the current from a small Dynamo, or from two or three Cells of Battery. As a Dynamo it has an output of about 10 Watts, and will readily light one of our 6 candle power Miniature Lamps. It has a Grooved Pulley and may be run by hand power if desired.

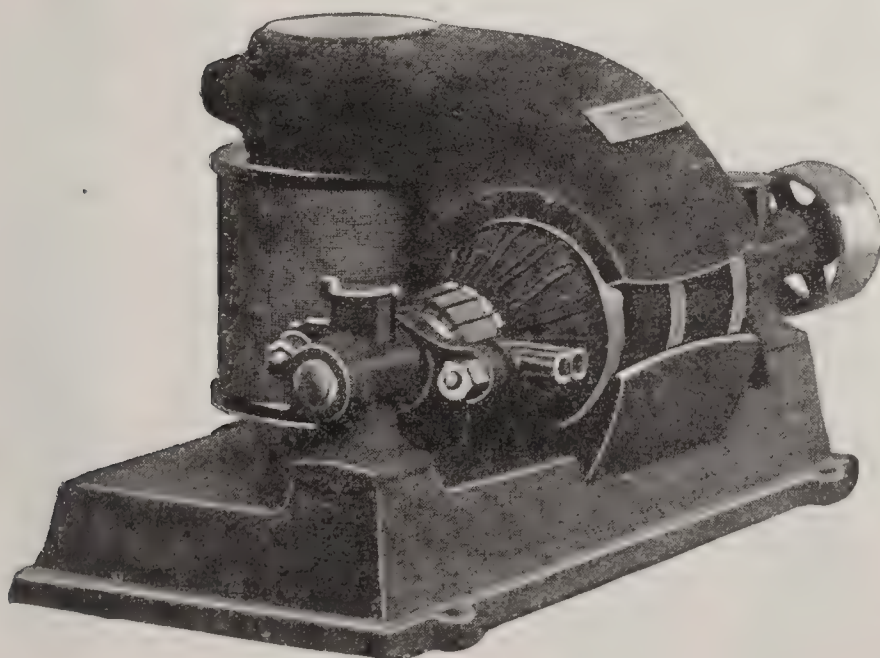
List No.	Price.
3772	\$5 00

TYPE B DYNAMO.

Will light six 16 candle power lamps.

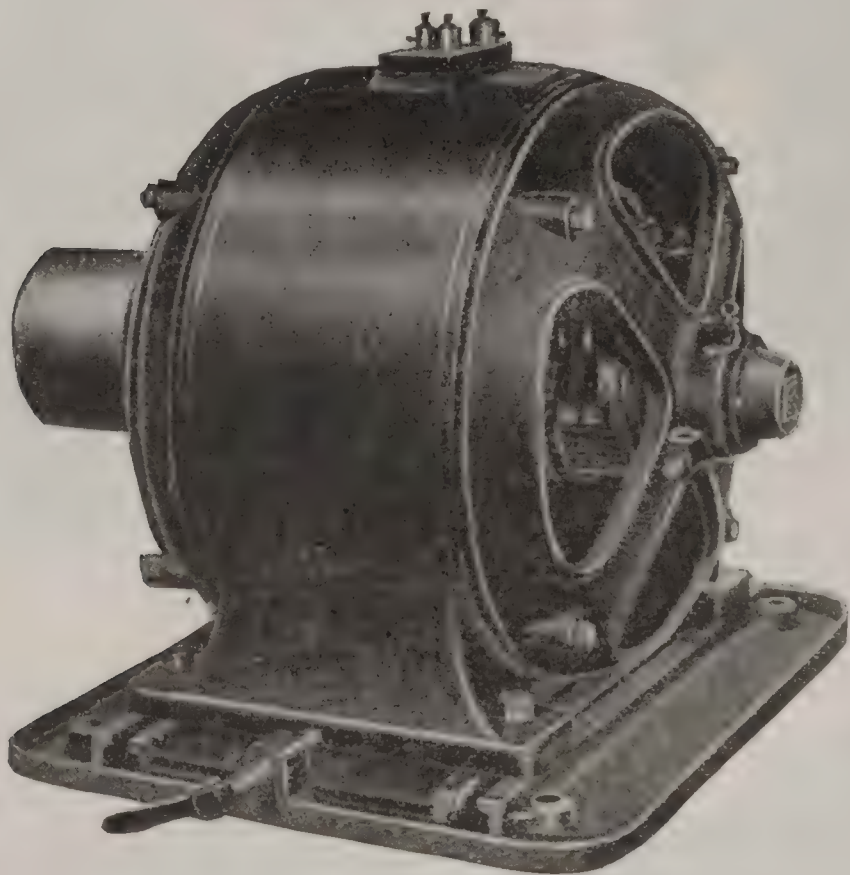
We have taken great pains to make this the most perfect and satisfactory low priced Dynamo on the market.

Size of Base, $13\frac{1}{2}$ x 8 inches. Height, $8\frac{1}{2}$ inches. Weight, 64 pounds. Pulley, $2\frac{1}{4}$ inches. Diameter, $1\frac{1}{4}$ inches face. Speed, 2,700 per minute. Voltage, 55 or 110 ordinary use, but may be wound to order for any Voltage from 6 to 220. Power required, $\frac{2}{3}$ horse power when all the lamps are burning. When fewer lamps are used the power required is proportionately less.



List No.	Price.
3770 55 Volts.....	\$52 00
3771 110 Volts.....	52 00

DIRECT CURRENT DYNAMOS AND MOTORS.
PROTECTED MULTIPOLAR TYPE.
3½ to 10 Horse Power.



These Machines embody the most successful features of modern design. During the eight years these Motors and Dynamos have been manufactured many improvements were made, several of which we have patented. They are designed with a view to their adaptability for all general uses and to meet all conditions of actual practice. Each part and detail, no matter how small, has been made the subject of careful study and development.

Brake H. P.	K. W.	No. of 16 C. P. Lamps.	Approx. Motor Speed.	Approx. Dynamo Speed.	Net Weight.	Shipping Weight.	Pulley.	
							Dia.	Width of Belt.
4	3.5	60	1100	1250	430	522	6	3½
5	4.5	75	1100	1250	570	662	7	4
7½	6.5	110	1000	1125	660	760	8	4½
10	8.5	140	1000	1100	790	890	8	4½
15	12.	200	1000	1100	1130	1340	10	7
20	15.	250	900	1000	1280	1510	12	8

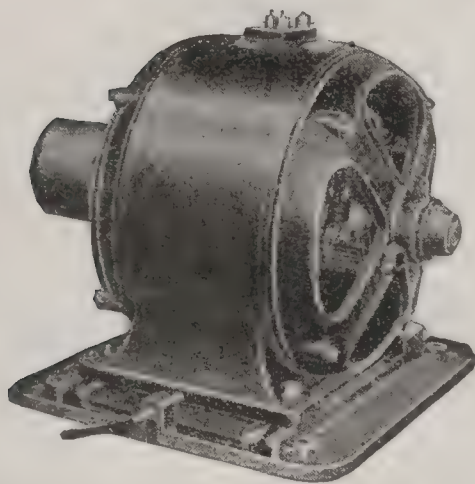
Motors.				Dynamos.			
List No.	Horse Power.	115 Volts	Price.	List No.	3.5 Kilowatts.	115 Volts	Price.
8830	4	"	\$220 00	8842	3.5	"	\$232 00
8831	4	"	220 00	8843	3.5	"	232 00
8832	4	"	220 00	8844	3.5	"	232 00
8833	5	"	276 00	8845	4.5	"	290 00
8834	5	"	276 00	8846	4.5	"	290 00
8835	5	"	276 00	8847	4.5	"	290 00
8836	7½	"	391 00	8848	6.5	"	410 00
8837	7½	"	391 00	8849	6.5	"	410 00
8838	7½	"	391 00	8850	6.5	"	410 00
8839	10	"	458 00	8851	8.5	"	480 00
8840	10	"	458 00	8852	8.5	"	480 00
8841	10	"	458 00	8853	8.5	"	480 00
13497	15	"	570 00	13491	12	"	600 00
13498	15	"	570 00	13492	12	"	600 00
13499	15	"	570 00	13493	12	"	600 00
13500	20	"	709 00	13494	15	"	745 00
13501	20	"	709 00	13495	15	"	745 00
13502	20	"	709 00	13496	15	"	745 00

Speeds may vary slightly from figures given; 500 Volts about 10 per cent higher. Prices include Combination Sliding Base and Oil Pan, Standard Xylotite Pulley, C. & H. Starting Rheostat with Automatic Release for Motors; and for Generators a Field Regulator for mounting on front of Switch Board. For Compound Wound Motors add 5 per cent to above list prices. The above Machines can be mounted on either wall, ceiling or floor. Outfits are packed in tight boxes, free.

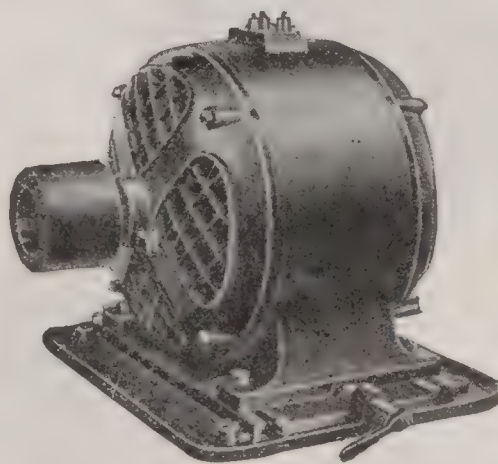
SMALL MOTORS AND GENERATORS.

BIPOLAR PROTECTED TYPE.

Direct Current.



PROTECTED TYPE COMMUTATOR END.



PROTECTED TYPE PULLEY END.

MOTORS.

List No.	Horse Power.	Volts.	Speed.	Net Weight.	Shipping Weight.	Diam. of Pulley.	Price.
8785	1-24	115	900	15	23	1	\$24 00
8786	1-24	230	900	15	23	1	26 00
8787	1-12	115	1800	15	23	1	23 00
8788	1-12	230	1800	15	23	1	25 00
8789	$\frac{1}{8}$	115	1800	18	26	$1\frac{1}{4}$	26 00
8790	$\frac{1}{8}$	230	1800	18	26	$1\frac{1}{4}$	28 50
8791	1-6	115	1800	22	30	$1\frac{1}{2}$	32 00
8792	1-6	230	1800	22	30	$1\frac{1}{2}$	34 50
8793	$\frac{1}{4}$	115	1600	40	57	2	50 00
8794	$\frac{1}{4}$	230	1600	40	57	2	54 00
8795	$\frac{1}{4}$	500	1600	40	57	2	62 00
8796	$\frac{1}{3}$	115	1600	55	72	$2\frac{1}{2}$	60 00
8797	$\frac{1}{3}$	230	1600	55	72	$2\frac{1}{2}$	65 00
8798	$\frac{1}{3}$	500	1600	55	75	$2\frac{1}{2}$	73 00
8799	$\frac{1}{2}$	115	1500	80	100	$3\frac{1}{2}$	75 00
8800	$\frac{1}{2}$	230	1500	80	100	$3\frac{1}{2}$	80 00
8801	$\frac{1}{2}$	500	1500	80	100	$3\frac{1}{2}$	87 00
8802	1	115	1400	207	250	4	120 00
8803	1	230	1400	207	250	4	124 00
8804	1	500	1400	207	250	4	130 00
8805	2	115	1275	330	394	5	152 00
8806	2	230	1275	330	394	5	162 00
8807	2	500	1275	330	394	5	167 00
8860	3	115	1200	410	490	5	185 00
8861	3	230	1200	410	490	5	185 00
8862	3	500	1200	410	490	5	190 00

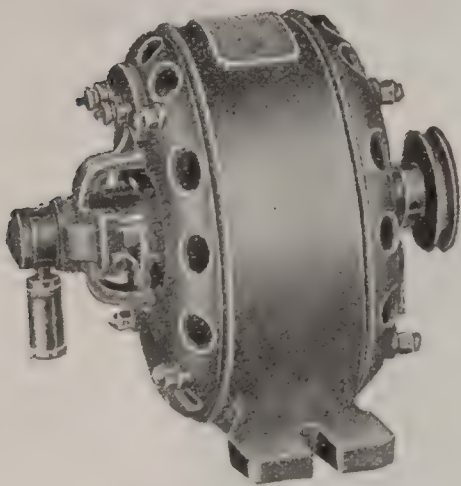
GENERATORS.

List No.	Kilowatts.	No. of 16 C. P. Lamps.	Speed.	Shipping Weight.	Net Weight.	Diam. of Pulley.	Volts.	Price.
13481	.25	4	1900	57	40	2	115	\$53 00
13482	.25	4	1900	57	40	2	230	57 00
13483	.33	6	1900	72	55	$2\frac{1}{2}$	115	63 00
13484	.33	6	1900	72	55	$2\frac{1}{2}$	230	68 00
13485	.5	8	1800	100	80	$3\frac{1}{2}$	115	79 00
13486	.5	8	1800	100	80	$3\frac{1}{2}$	230	84 00
13487	1	16	1650	250	207	4	115	126 00
13488	1	16	1650	250	207	4	230	130 00
13489	2	32	1450	394	330	5	115	170 00
13490	2.5	40	1350	490	410	5	115	195 00

Prices apply to standard Voltages and Speeds, and include C. & H. Starting Rheostat with Automatic Release for Motors and Field Regulators for Generators $\frac{1}{4}$ Horse Power and larger, also Combination Sliding Base and Oil Pan for 1 Horse Power and larger.

All Machines are Shunt Wound, unless otherwise ordered; for Compound Winding add 5 per cent to above prices. The above Machines can be mounted on either wall, ceiling or floor.

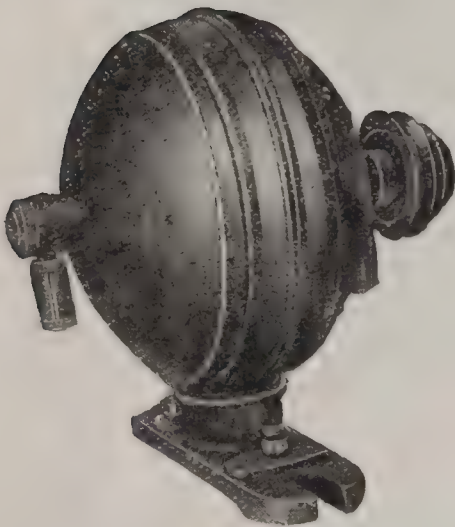
SMALL DIRECT CURRENT MOTORS.



$\frac{1}{10}$ HORSE POWER.

This Motor is adapted to the operation of jeweler's lathes, buffs, small grinders, etc. Black Japan Finish, Nickel Trimmings.

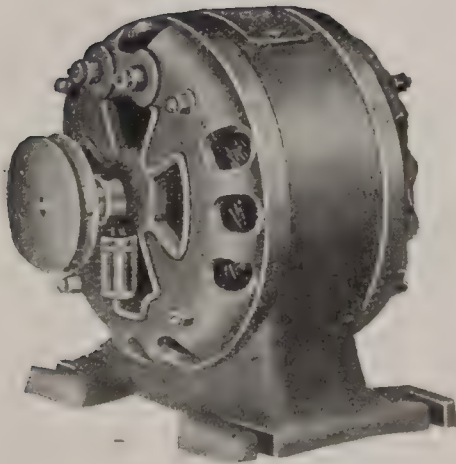
List No.					Price.
27683	Winding Shunt, 115 Volts.	Speed 1500			\$34 00
27684	" Shunt, 230 "	" 1500			36 00
27685	" Series, 115 "	" 1500			34 00
27686	" Series, 230 "	" 1500			36 00



$\frac{1}{15}$ HORSE POWER.

23520	Winding Shunt, 115 Volts.	Speed 1800		28 00
26360	" Series, 115 "	" 2200		28 00
31798	" Series, 230 "	" 2200		30 00

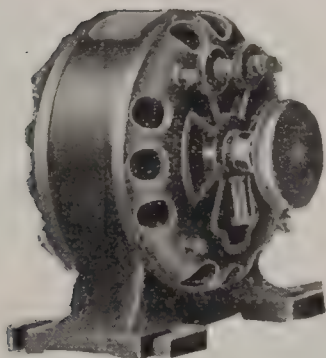
SMALL ALTERNATING CURRENT MOTORS.



$\frac{1}{10}$ HORSE POWER. SINGLE PHASE

These Motors were designed to operate automatic musical instruments, and are also suitable for any light power purposes. This Motor is provided with a Centrifugal Clutch for starting. It is a simple arrangement within the Armature which grips the Shaft when a predetermined speed has been reached by the Armature. The standard finish is Black Japan with Nickel Trimmings.

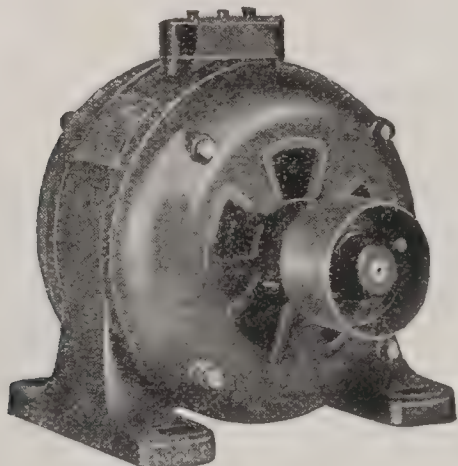
List No.					Price.
32063	60 Cycles. 110 Volts.	Speed 1800			\$47 00
32065	60 " 220 "	" 1800			50 00
32062	125 " 110 "	" 1875			47 00
32064	125 " 220 "	" 1875			50 00



$\frac{1}{15}$ HORSE POWER.

29560	60 Cycles. 110 Volts.	Speed 1800		38 00
31799	60 " 220 "	" 1800		40 00
29561	125 " 110 "	" 1875		38 00
31806	125 " 220 "	" 1875		40 00

SMALL ALTERNATING CURRENT MOTORS.



A large number of types and styles of Small Belted Alternating Motors are in production, suited to all standard systems of alternating current distribution. They include Machines wound for Single Phase Circuits of 60 Cycles at 110 and 220 Volts. These Motors are all of the induction type, the Single Phase Machines being either hand starting or started at full Torque by means of Condenser Compensators. The Hand Starting Motors are supplied for 60 Cycles, $\frac{1}{4}$ and $\frac{1}{2}$ Horse Power, only.

Heretofore Single Phase Motors have been unsatisfactory, owing to their lack of Starting Torque without the use of rather elaborate and costly starting devices, and often the addition of a Commutator to the Motor.

As one of the greatest advantages of alternating over Direct Current Motors consists in the elimination of the Commutator, it is certainly undesirable to re-introduce this device even for use during the period of starting.

The General Electric Company has recently developed a line of Single Phase Motors for 60 Cycle Circuits which are entirely free from the grave defects inherent in many machines of the same class.

Hand Starting Motors require an external starting impulse which is usually applied by means of a quick pull at the Belt. A speed of about 300 R. P. M. is generally sufficient to enable the Motor to pick up its load at rated Voltage.

The Self Starting Motors have Clutch Pulley which allows Armature to attain speed before gripping.

SINGLE PHASE, HAND STARTING.

List No.									Price.
9960	$\frac{1}{4}$ Horse Power.	60 Cycles.	110 Volts.	Speed	1800	-----			\$61 20
9961	$\frac{1}{4}$ " "	60 " "	220 " "	" "	1800	-----			64 80
9962	$\frac{1}{2}$ " "	60 " "	110 " "	" "	1800	-----			66 60
9963	$\frac{1}{2}$ " "	60 " "	220 " "	" "	1800	-----			70 60

SINGLE PHASE, SELF STARTING.

9964	$\frac{1}{4}$ Horse Power.	60 Cycles.	110 Volts.	Speed	1800	-----			84 60
9965	$\frac{1}{4}$ " "	60 " "	220 " "	" "	1800	-----			84 60
9966	$\frac{1}{2}$ " "	60 " "	110 " "	" "	1800	-----			90 00
9967	$\frac{1}{2}$ " "	60 " "	220 " "	" "	1800	-----			90 00

TWO PHASE, SELF STARTING.

13505	$\frac{1}{4}$ Horse Power.	60 Cycles.	110 Volts.	Speed	1800	-----			88 00
13506	$\frac{1}{4}$ " "	60 " "	220 " "	" "	1800	-----			94 00
13507	$\frac{1}{2}$ " "	60 " "	110 " "	" "	1800	-----			94 00
13508	$\frac{1}{2}$ " "	60 " "	220 " "	" "	1800	-----			100 00

THREE PHASE.

13509	$\frac{1}{4}$ Horse Power.	60 Cycles.	110 Volts.	Speed	1800	-----			88 00
13510	$\frac{1}{4}$ " "	60 " "	220 " "	" "	1800	-----			94 00
13511	$\frac{1}{2}$ " "	60 " "	110 " "	" "	1800	-----			94 00
13512	$\frac{1}{2}$ " "	60 " "	220 " "	" "	1800	-----			100 00

SINGLE-PHASE ALTERNATING CURRENT MOTORS.

1 TO 15 HORSE POWER.



These Motors are specially designed to operate on lighting circuits, and the General Electric Company has spared neither time nor expense in producing a Motor which will in no way interfere with arc or incandescent lamps operating upon the same circuit. This has been accomplished by the use of Condensers, and a Starting Resistance in the Armature Circuit, the result being a Starting Current which does not exceed that of full load, and a high power factor at all loads, thus eliminating the lagging currents common to other Motors of the Induction Type, especially at light loads.

The Form L Single Phase Motors differ from other types of Single Phase Motors in which Condensers have been employed, in that the condensers are not connected in Shunt with Motor. With this method of starting the Motors are entirely automatic, and should the circuit be interrupted and again completed, the Motors will start without attention. To obtain full starting Torque Clutch Pulley is used.

These Motors may be prepared for wall or ceiling use by simply loosening the End Shields and turning them 90 or 180 degrees respectively. This is a very important point where space is limited.

The Motors can be operated from the same Transformer as arc or incandescent lamps, or can be supplied with separate Transformers. Allow one Kilowatt capacity of Transformer per Horse Power of Motors installed.

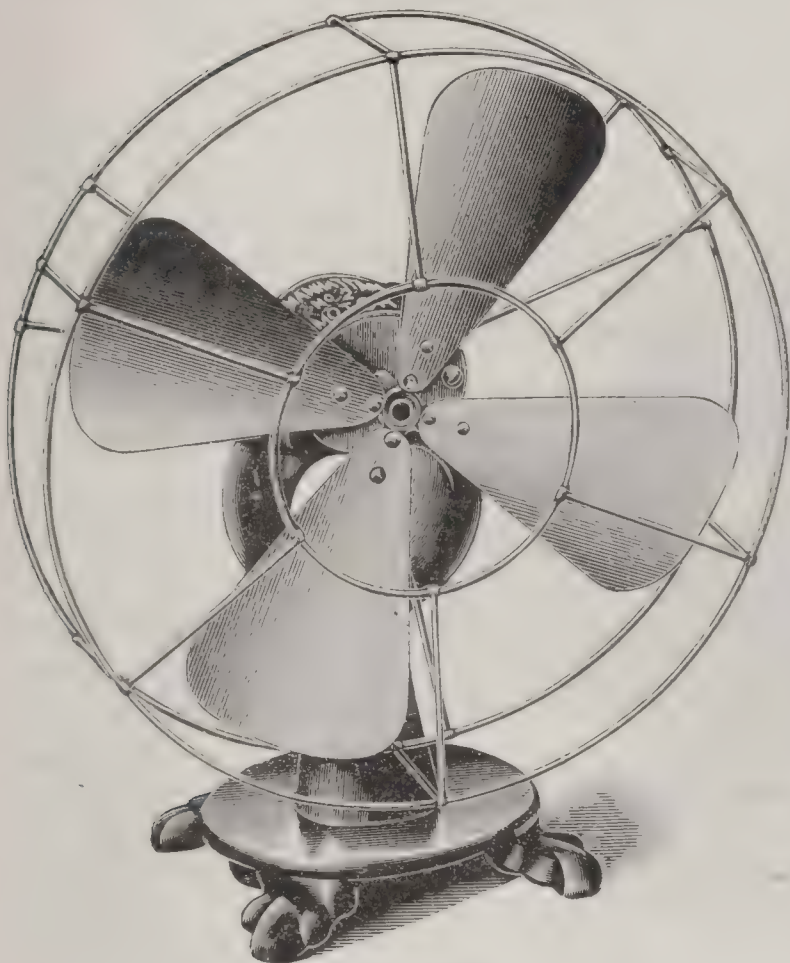
SELF STARTING MOTORS.

Single Phase.

List No.								Price.
9968	1	Horse Power.	60 Cycles.	110 Volts				\$199 00
9969	1	"	"	60	"	220	"	199 00
9970	2	"	"	60	"	110	"	225 00
9971	2	"	"	60	"	220	"	225 00
9972	3	"	"	60	"	110	"	242 00
9973	3	"	"	60	"	220	"	242 00
9974	5	"	"	60	"	110	"	306 00
9975	5	"	"	60	"	220	"	306 00
9976	7½	"	"	60	"	220	"	477 00
9977	10	"	"	60	"	220	"	549 00
9978	15	"	"	60	"	220	"	684 00

MANHATTAN BATTERY FAN MOTORS.

FAN MOTOR OUTFIT.



List No. 3590.

This is not a toy but a practical Fan Motor with a nine-inch Fan, that will give a good breeze when run on four Cells of type "S" Edison Primary Battery or the equivalent in Dry Batteries.

This Motor consumes less current than any Motor of equal size on the market. The Fields are of the Permanent Magnet Type with a Wire Wound Armature.

Weight, 7 pounds. Height of Motor, only 9 inches. Total height of Motor and Fan 13 inches.

This outfit consists of Fan, Motor, four Cells of type "S" Edison Primary Battery, Battery Box, Battery Cords and Charge for Battery that will run Motor about 150 hours.

List No.	Price.
3604 Complete Outfit.....	\$24 00

FAN MOTOR ONLY.

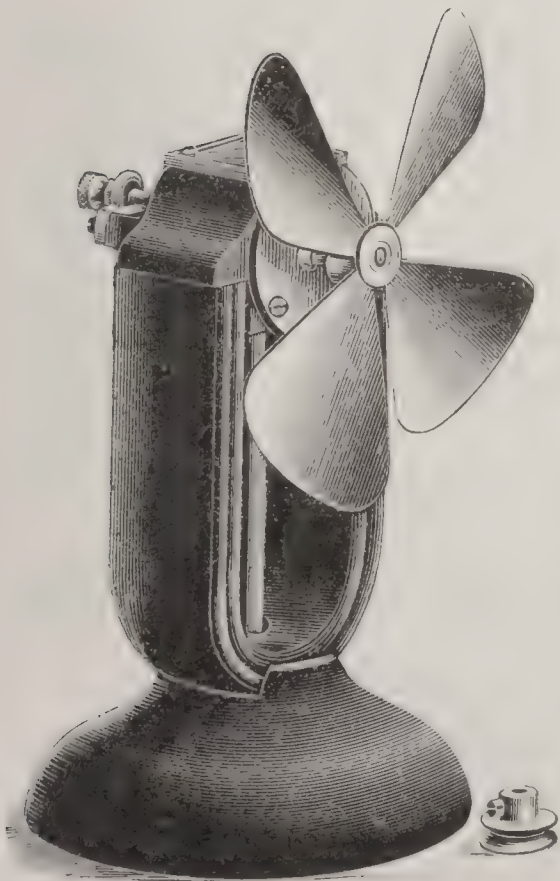
List No.	Price.
3590 With 9-inch Fan.....	\$6 00

MANHATTAN BATTERY MOTOR.

This Motor is also Permanent Magnet Type with Wire Wound Armature and will give 200 R. P. M. on Three Cells of Battery. This Motor can be used to advantage to show construction and operation of the Permanent Magnet Type of Motor.

Weight, 5 pounds. Complete with Fan and Pulley.

List No.	Price.
3592 Complete, with 5-inch Fan.....	\$2 10

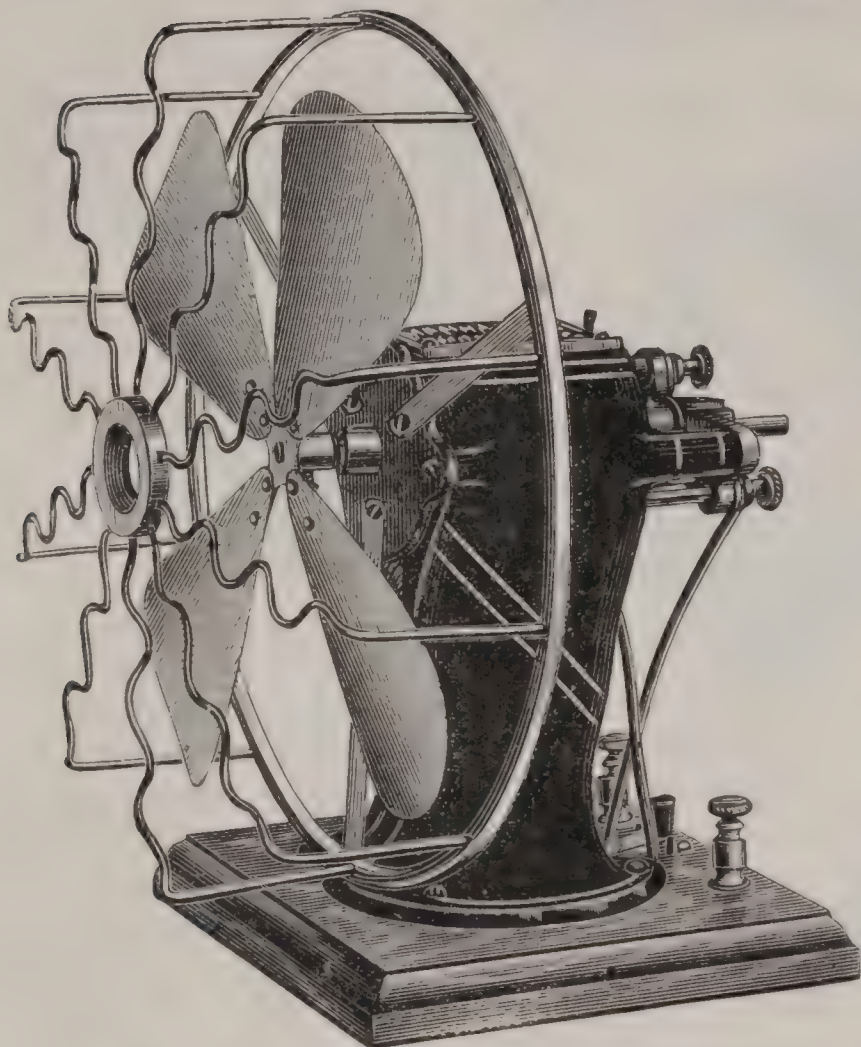


List No. 3592.

BRASS FANS ONLY.

List No.	Price.
3600 4-inch	30 35
3601 5 "	50
3602 7 "	75
3603 9 "	1 00

MANHATTAN BATTERY FAN MOTOR OUTFITS.



THE IDEAL FAN MOTOR OUTFIT.

This Outfit is intended for use where street current is not available and will give very efficient service on current from four Cells of Edison Primary Battery, Type "S." The Motor is nicely finished and mounted on an Oak Base, has a nine-inch Four Blade Brass Fan and Brass Guard. This Outfit is very useful in sick rooms and will operate for about one hundred and fifty hours on one charge of battery. The complete outfit consists of: one Battery Fan, four Cells of Type "S" Edison Primary Battery, one Polished Wood Battery Box, Charge for Battery, Battery Cords, etc., full directions.

List No.	Price.
3596 Complete Outfit, as above.....	\$25 00
3598 Complete Renewals for Battery	5 84

FAN MOTOR ONLY.

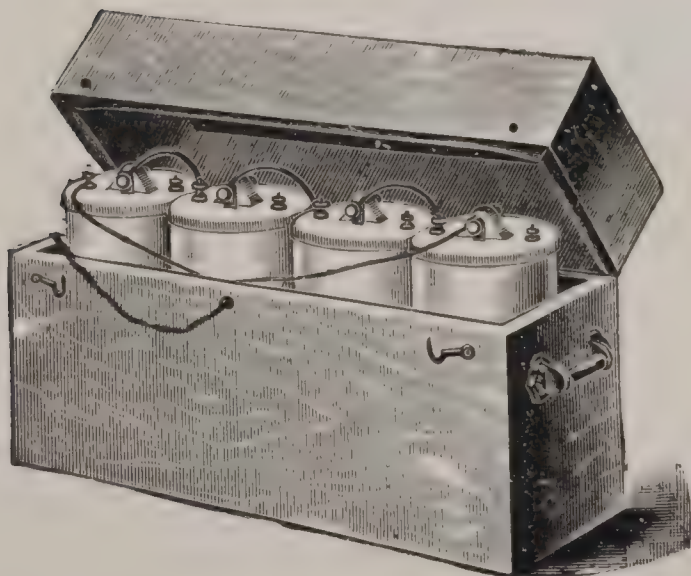
The Motor and Fan occupies a space 10 x 12 inches.

List No.	Price.
3595 Fan Motor only, with nine-inch Fan and Guard.....	\$12 00
3599 Extra Brushes.....	20

BATTERY BOX ONLY.

Made of White Wood, filled and varnished, has Hinged Cover, Handles and Hooks to fasten. Size: 25 inches long, 8 inches wide, 15 inches high, will hold four Cells of Type "S" Battery.

List No.	Price.
3618 Box only.....	\$2 00

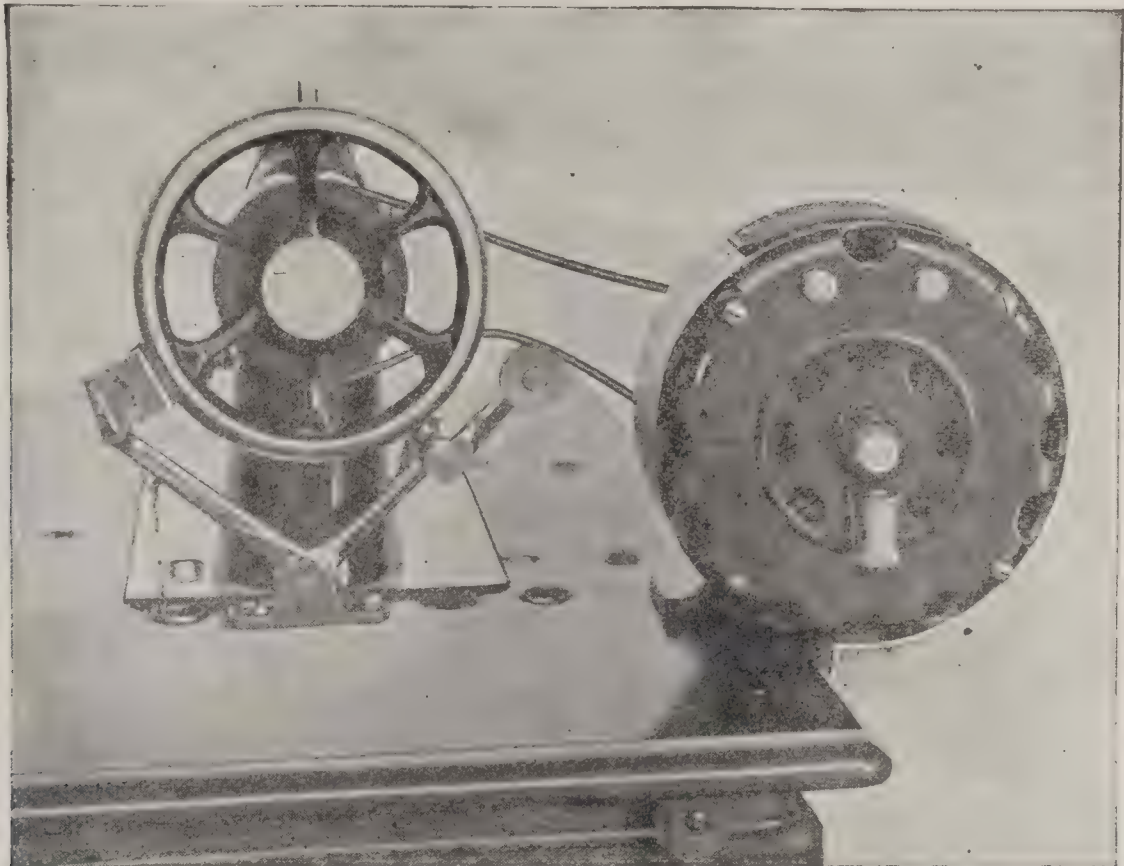


BATTERY AND BOX WITH NO. 3596 OUTFIT.

FLEXIBLE CONNECTING CORDS FOR FAN MOTOR OUTFIT.

List No.	Price.
3597 Cords, complete.....	\$1 00

SEWING MACHINE MOTOR OUTFITS.



These Motors can be furnished for use on both Direct and Alternating Current Circuits of the usual Voltages. The Standard Direct Current Motors will operate satisfactorily on Circuits of 100 to 125 Volts. The Alternating Current Motors will operate well on Circuits ranging from 100 to 115 Volts, provided the frequency does not vary more than five per cent either way from the normal. The complete Outfit consists of Motor with Pulley, Brake and Belt Tightener Mechanism, Treadle Chain, two Beckets for attaching respectively to the Treadle and the Leg of the Machine, Screws and Leather Belt. Weight, net, 27 pounds. Weight, boxed, 50 pounds.

FOR STATIONARY HEAD
MACHINES.

Singer, Wheeler & Wilson, New Home, White, Domestic, Demorest and Standard.

Alternating Current, Single Phase.

List No.	H. P.	Cycles.	Volts.	Price.
23914	$\frac{1}{30}$	125	110	\$34 00
23915	$\frac{1}{30}$	60	110	34 00
31626	$\frac{1}{30}$	125	220	36 00
31627	$\frac{1}{30}$	60	220	36 00
31628	$\frac{1}{15}$	125	110	49 00
31629	$\frac{1}{15}$	60	110	49 00
31630	$\frac{1}{15}$	125	220	52 00
31631	$\frac{1}{15}$	60	220	52 00

Direct Current.

List No.	H. P.	Volts.	Speed.	Price.
23916	$\frac{1}{15}$	115	1600	\$37 50
31632	$\frac{1}{15}$	230	1600	39 50

For Manufacturing Machines.

Direct Current.

List No.	H. P.	Volts.	Speed	Price.
31633	$\frac{1}{10}$	115	1500	\$45 00
31634	$\frac{1}{10}$	230	1500	48 00

FOR DROP HEAD MACHINES.

Singer, New Home, White, Domestic, Demorest and Paragon.

Alternating Current, Single Phase.

List No.	H. P.	Cycles.	Volts.	Price.
23917	$\frac{1}{30}$	125	110	\$34 00
23918	$\frac{1}{30}$	60	110	34 00
31635	$\frac{1}{30}$	125	220	36 00
31636	$\frac{1}{30}$	60	220	36 00

Direct Current.

List No.	H. P.	Volts.	Speed.	Price.
23919	$\frac{1}{15}$	115	1600	\$37 50
31637	$\frac{1}{15}$	230	1600	39 50

For Wilcox & Gibbs' Stationary or Drop Head Machines.

Alternating Current, Single Phase.

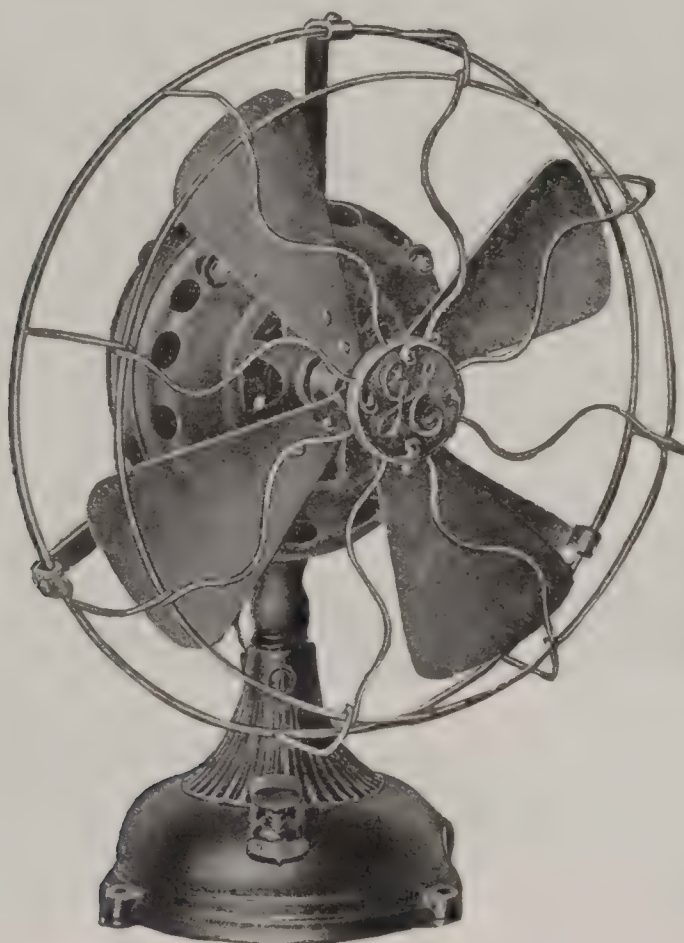
List No.	H. P.	Cycles	Volts.	Price.
23920	$\frac{1}{30}$	125	110	\$34 00
23921	$\frac{1}{30}$	60	110	34 00
31638	$\frac{1}{30}$	125	220	36 00
31639	$\frac{1}{30}$	60	220	36 00

Direct Current.

List No.	H. P.	Volts.	Speed.	Price.
23922	$\frac{1}{15}$	115	1600	\$37 50
31640	$\frac{1}{15}$	230	1600	39 50

G. E. ALTERNATING CURRENT FAN MOTORS.

TWELVE-INCH SWIVEL FRAME.



These Fans have a Six-Point Regulating Switch in Base, and full speed on the 60 Cycle Motor is 1500 R. P. M. The 125 Cycle Motor has a speed of 1470 R. P. M.

Frame and Base are finished in Black Enamel. Fan, Guard and Trimmings are Lacquered Brass.

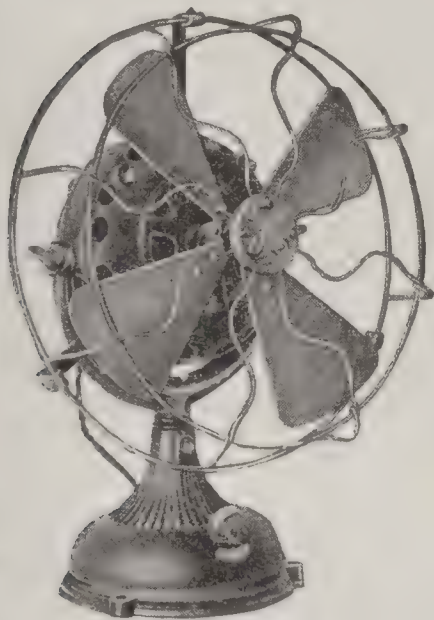
Weight, 21 pounds,

Motors in any of the following special finishes can be furnished at an additional net price of \$1.50: Royal Blue and Gold, Wine Red and Gold, White and Gold.

List No.	Mfrs. No.		Price.
13514	34013	60 Cycles. 100, 115 Volts.....	\$30 00
13515	34014	60 Cycles. 190, 220 Volts.....	32 50
13516	34015	125, 140 Cycles. 100, 115 Volts.....	30 00
13517	34016	125, 140 Cycles. 190, 220 Volts.....	32 50

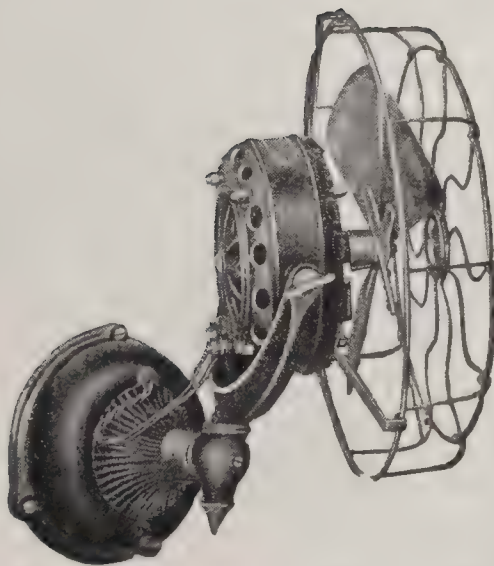
G. E. ALTERNATING CURRENT
FAN MOTORS.

TWELVE-INCH SWIVEL AND TRUNNION FRAME DESK FANS.



This Motor has Six-Point Regulating Switch.
Full Speed, 60 Cycles, 1500 R. P. M. 125 Cycles, 1470 R. P. M.
Frame and Base finished in Black Enamel. Fan, Trimmings and Guard, Lacquered Brass.
This Fan is adjustable both horizontally and vertically.
Motors in any of the following special finishes can be furnished at an additional net price of \$1.50: Royal Blue and Gold, Wine Red and Gold, White and Gold.
Weight, 22 Pounds.

List No.	Mfg. No.		Price.
13518	34017	60 Cycles. 100, 115 Volts	\$32 00
13519	34018	60 Cycles. 190, 220 Volts	34 50
13520	34019	125, 140 Cycles. 100, 115 Volts.	32 00
13521	34020	125, 140 Cycles. 190, 220 Volts.	34 50



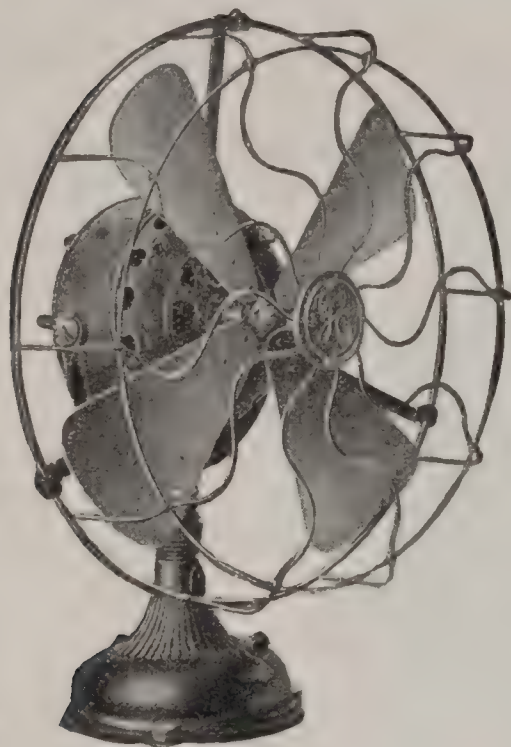
TWELVE-INCH SWIVEL AND TRUN-
NION FRAME BRACKET FAN.

The Desk and Bracket Types of Motors are identical with the exception that the Bracket Motor has in addition an Angular Adapter or Elbow, which can be supplied separate.
This Motor has the same specifications as the one above.
Weight, 23 pounds. Finishes same as above.

List No.	Mfrs. No.		Price.
13522	36328	60 Cycles. 100, 115 Volts.....	\$33 25
13523	36329	60 Cycles. 190, 220 Volts.....	35 75
13524	36330	125, 140 Cycles. 100, 115 Volts....	33 25
13525	36331	125, 140 Cycles. 190, 220 Volts....	35 75

G. E. ALTERNATING CURRENT FAN MOTORS.

SIXTEEN-INCH SWIVEL AND TRUNNION FRAME DESK FANS.



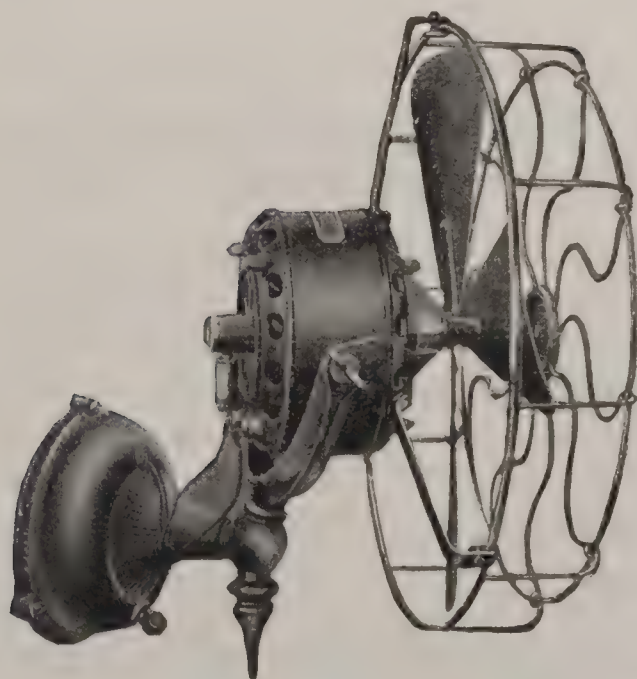
This Motor at full speed, 60 Cycles, 1570 R. P. M. 125 Cycles, 1390 R. P. M. It has Six-Point Regulating Switch, and Power required at full speed is 178 Watts.

Frame and Base finished in Black Enamel with Lacquered Fan, Guard and Trimmings.

This Motor can be adjusted both horizontally and vertically and can be furnished in any of the following special finishes at an additional net price of \$1.50: Royal Blue and Gold, Wine Red and Gold, White and Gold. Weight, 33 pounds.

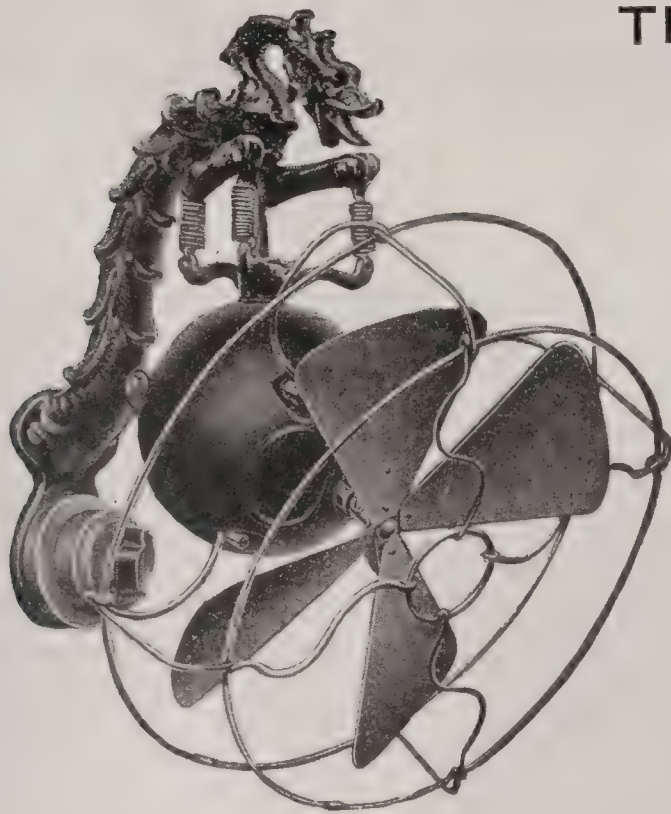
List No.	Mfrs. No.		Price.
13526	34021	60 Cycles. 100, 115 Volts.....	\$43 00
13527	34022	60 Cycles. 190, 220 Volts.....	45 00
13528	34023	125, 140 Cycles. 100, 115 Volts...	43 00
13529	34024	125, 140 Cycles. 190, 220 Volts...	45 00

SIXTEEN-INCH SWIVEL AND TRUNNION FRAME BRACKET FANS.



This Fan has the same Specifications as the Wall Type above, with the exception that the Wall Bracket Motor, has in addition to the Standard Parts of the Desk Type, an Angular Adapter or Elbow which is used to change a Fan from Desk to Bracket. This can be done in a few minutes by removing the Set Screws in the top of Base and upper end of Straight Adapter, and substituting Angular Adapter for the straight one. Weight of Fan complete, 33 pounds.

List No.	Mfrs. No.		Price.
13530	36328	60 Cycles. 110, 115 Volts.....	\$44 25
13531	36329	60 Cycles. 190, 220 Volts.....	46 25
13532	36330	125, 140 Cycles. 110, 115 Volts..	44 25
13533	36331	125, 140 Cycles. 190, 220 Volts..	46 25
Angular Adapter			1 25



TELEPHONE BOOTH
FAN MOTORS.

FOR DIRECT AND ALTERNAT-
ING CURRENT.

EIGHT-INCH FANS.

The Spring Suspension used on this Fan makes it especially desirable for telephone booths and other installations where vibration and noise must be eliminated.

Fan can be turned on its vertical axis and held permanently in any desired position by a Set Screw. The ornamental Dragon Bracket is hollow to receive Wires and can be screwed to the wall or partition. A Snap Switch to start or stop Motor is placed on the Base of the Bracket.

Frame and Bracket finished in Black Enamel. Fan and Guard in Lacquered Brass.

Speed, 1200 R. P. M.

Alternating Current.

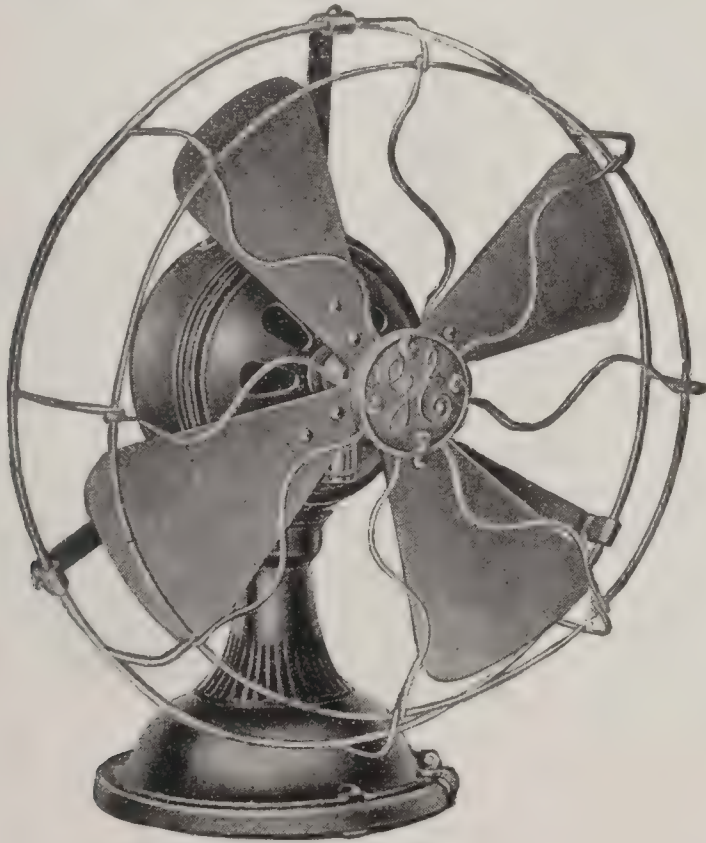
List No.	Mfrs. No.	Voltage.	Cycles.	Price.
13535	86789	104	60	\$24 00
13536	*86791	55	60	24 00
13537	*86813	60	140	24 00

* For operation in series with 52 Volt, 8 Candle Power, 32 Watt Lamps on 104 Volt Circuit. Price does not include Lamps.

Direct Current.

List No.	Mfrs. No.	Voltage.	Price.
13538	86790	115	----- \$24 00
13539	*86792	18	----- 24 00

* For operation in series with 110 Volt, 16 Candle Power, 55 Watt Lamps on 115 Volt Circuit.



G. E. DIRECT CURRENT
FAN MOTORS.

TWELVE-INCH SOLID FRAME.

Four-Point Switch giving three speeds, 900, 1200 and 1500 R. P. M. Motors will operate satisfactorily on circuits the voltage of which is 10 per cent above or below the rated voltage.

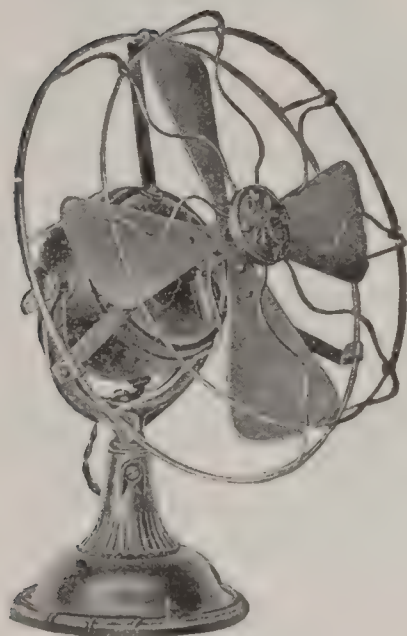
Frame finished in Black Enamel. Fan, Guard and Trimmings, Lacquered Brass.

Motors in any of the following finishes can be furnished at an additional net price of \$1.50: Royal Blue and Gold, Wine Red and Gold, White and Gold.

Weight, 21½ pounds.

List No.	Mfrs. No.	Voltage.	Price.
13540	34001	115	----- \$30 00
13541	34002	230	----- 32 50

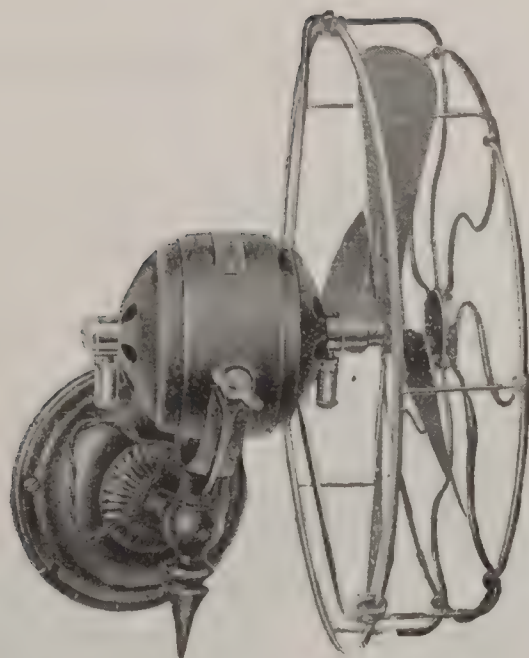
G. E. DIRECT CURRENT FAN MOTORS.



TWELVE-INCH SWIVEL AND TRUNNION FRAME DESK FANS.

This Motor has Four-Point Regulating Switch and three speeds, 900, 1200 and 1500 R. P. M. Motor can be operated satisfactorily on circuits the voltage of which is ten per cent above or below the rated voltage. Motor is adjustable both horizontally and vertically. Frame finished in Black Enamel. Fan, Guard and Trimmings, Lacquered Brass. Frame with Removable Shield permitting examination of the Commutator and Carbon Brushes. Motor can be furnished in any of the following Special Finishes for a net price of \$1.50: Royal Blue and Gold, Wine Red and Gold, White and Gold. Weight, 21¼ pounds.

List No.	Mfrs. No.	Price.
13542	34003 115 Volts.....	\$40 00
13543	34004 230 Volts.....	42 50

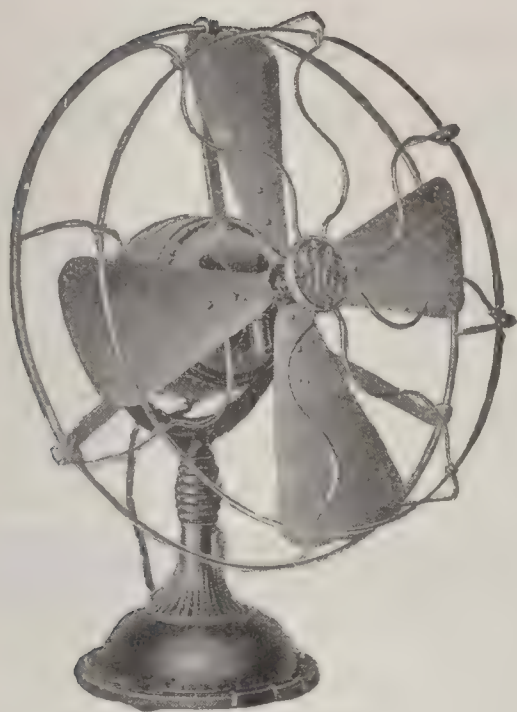


TWELVE-INCH SWIVEL AND TRUN- NION FRAME BRACKET FAN.

Specifications same as on Desk Fan listed above. Weight, 22¼ pounds. The Desk and Wall Types of Motor are identical with the exception that the Wall Bracket Type has in addition to the Standard parts of the Desk Type, an Angular Adapter or Elbow.

List No.	Mfrs. No.	Price.
13544	36324 115 Volts.....	\$41 25
13545	36325 230 Volts.....	43 75
13546	23562 Angular Adapter for use with Desk Type	1 25

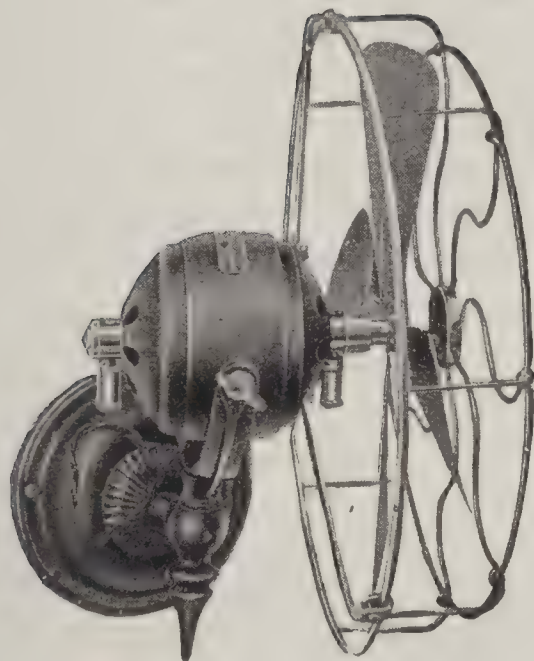
G. E. DIRECT CURRENT FAN MOTORS.



SIXTEEN-INCH SWIVEL AND TRUNNION
DESK FAN.

Four-Point Regulating Switch giving three speeds, 900, 1200 and 1500 R. P. M. Power required, full speed 100 Watts, medium speed 85 Watts, slow speed 65 Watts. Frame finished in Black Enamel with Lacquered Brass Fan, Guard and Trimmings. Special finishes as follows: Royal Blue and Gold, Wine Red and Gold, White and Gold, at an additional net price of \$1.50. Weight, 31 pounds.

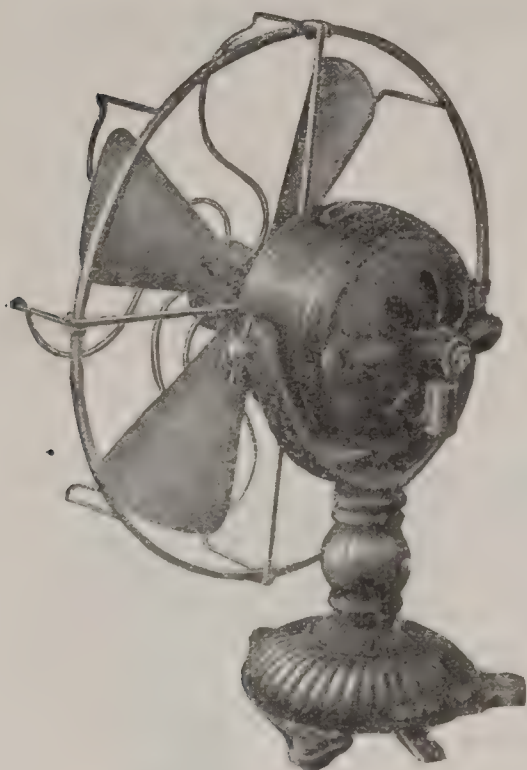
List No.	Mfrs. No.	Price.
13547	34005 115 Volts.....	\$40 00
13548	34006 230 Volts.....	42 50



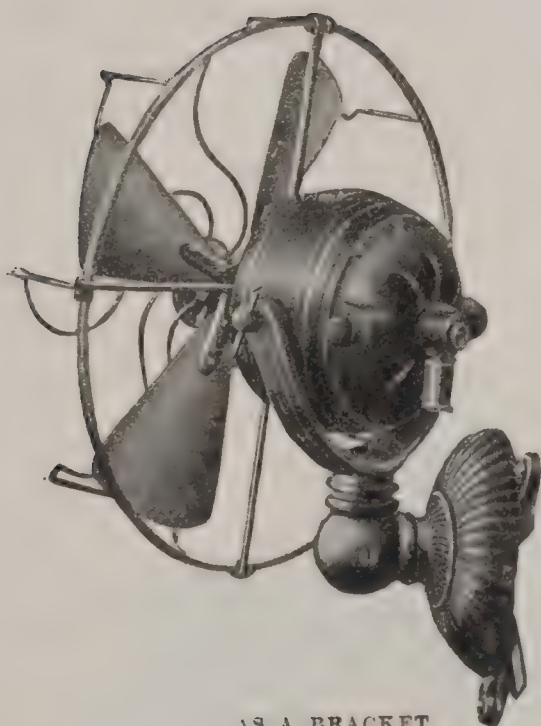
SIXTEEN-INCH SWIVEL AND TRUN-
NION BRACKET FAN.

Specifications and Finishes same as Desk Fan listed above.

List No.	Mfrs. No.	Price,
13549	36326 115 Volts.....	\$41 25
13550	36327 230 Volts.....	43 75



AS A DESK.



AS A BRACKET.

DIEHL UNIVERSAL FAN MOTORS.

These Fans represent the most advanced ideas in the development of Fan Motors, combining in one unit the three styles known as Desk, Trunnion and Bracket Fans. They are easily adjusted to any position without the use of extra parts or special tools. The material and workmanship are of the best, the guards are new in design and ornamental, strong and rigid. The finish is very fine. They are made in three sizes, nine, twelve and sixteen inch Blades. Fans have three speeds. The Regulator is mounted on unbreakable Base. Cartridge Type Brushes and Wick Feed Oil Cups. To change from Desk to Bracket, or vice versa, loosen the Screw holding the two halves of the Ball on the Standard. The position of these pieces is located by a Pin on one half engaging a Hole in the other. By loosening the Screw sufficiently to disengage the Pin from the Hole, the two halves may be rotated on themselves for a quarter turn. When the proper point is reached the Pin engages another Hole and the change is complete when the Screw is tightened. Polished Brass Trimmings are regular.

List No.

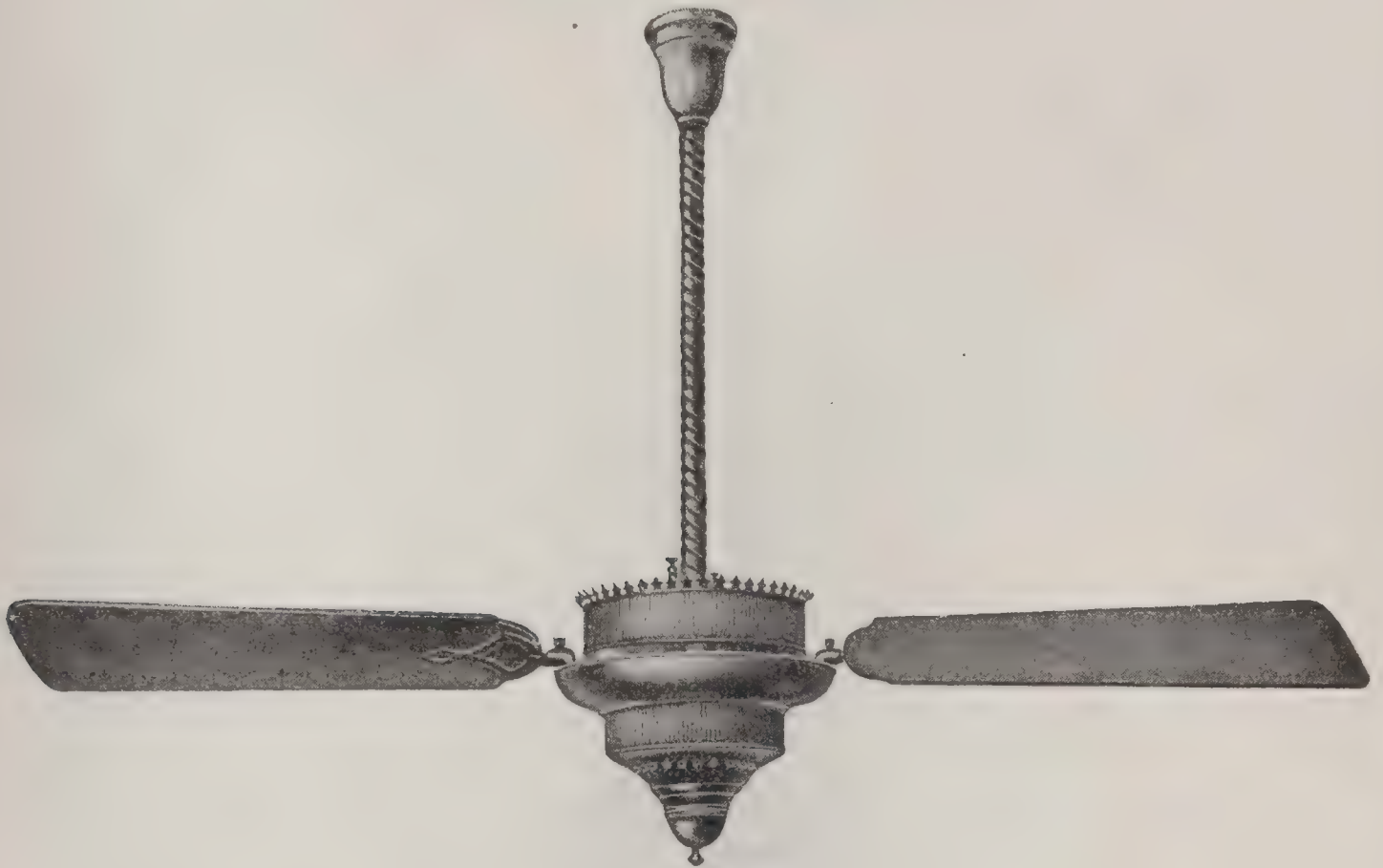
Price.

13552	Diameter of Blades, 9 inches.	110 Volts.	.20 Amperes.....	\$18 00
13553	" " 9 "	220 "	.12 "	20 50
13554	" " 12 "	110 "	.40 "	20 00
13555	" " 12 "	220 "	.20 "	22 50
13556	" " 16 "	110 "	.75 "	25 00
13557	" " 16 "	220 "	.40 "	27 50
13558	" " 16 "	500 "	.20 "	32 00

Oxidized Copper Finish same price. Nickel-Plated Finish add \$2.00 to above list.

DIEHL STANDARD CEILING FANS.

FOR DIRECT CURRENT.



List No. 8945.

Diehl Standard Ceiling Fans are used and recommended by a large majority of central stations on account of their high efficiency and durability. The armature and field cores are laminated, being built up of thin sheet charcoal iron. The flat indestructible commutator is located below the armature to prevent the accumulation of dirt. The improved oil cup requires replenishing once only each season, and does not leak or throw oil.

Unless otherwise specified, all Ceiling Fan Motors will be shipped with the proper length of stem for 12-foot ceiling. For each additional foot of stem add \$1.00 to List price.

List No.	Finish	Voltage	Price each.
8945	Japan	110	\$38.00
8946	"	170	40.00
8947	"	220	43.00
8948	"	250	43.00
8949	"	500	53.00
8950	"	6 8 Amp	38.00
8951	"	9.6 "	38.00

For Nickel-plated Oxidized Copper or Polished Brass finish, add \$2.00 list extra.

For 3-speed regulator and switch combined on 110, 220-volt fan, add \$4.00 to List price. All Standard finishes carried in stock. Special finishes quoted on application.

Switch is furnished when fans are operated singly on 110 and 220-volt circuits.

DIEHL CEILING FANS.
FOR DIRECT CURRENT.



Owing to the demand for Ceiling Fans at a lower price than the standard fan can be sold, this has been designed on the same lines as the highly efficient Desk Fan, a prominent feature of which is the unbroken magnetic circuit. This type presents a compact and symmetrical appearance, and with the improvements made can be consistently recommended to all users with entire confidence in the results obtained. It has an ironclad armature and a hard drawn copper commutator mounted on a hollow steel shaft, case hardened, all of ample dimensions. Self-oiling bearings, that only require replenishing each season, and so designed that it is impossible to drip or throw oil. The brush holders are of the same type as used on the Desk Fans. They are positive in action and render the brushes easily accessible without disturbing any other part of the fan.

It is furnished complete with 4 blades, malleable iron blade holders finished in nickel. The body has smooth japanned surface with gold striping.

List No.	Finish.	Voltage.	Price.
8953	Japan	110	\$30.00
8954	"	170	31.00
8955	"	220	33.00
8956	"	250	35.00
8957	"	500	45.00

Price includes switch for 110 and 220-volt fans. Unless otherwise specified, japanned iron pipe is sent for 12-foot ceiling. Extra length of pipe, per foot, 30 cents list. Blades 7 feet 10 inches from floor.

For 2 speed regulator add \$2 50 to list price.
" 3 " " " \$3.50 " "

DIEHL ELECTROLIER CEILING FAN.
FOR DIRECT CURRENT.



This Electrolier Ceiling Fan has all the good features in construction as No. 8953 described on preceding page. The light brackets are of sufficient length to give the lights proper angle and spread and thus eliminate the cheap cluster effect. This fan is furnished with 4 Nyssa wood blades, 4 light brackets, key sockets and shade holders. Spread of lights 18 inches.

List No.		List No.		Voltage	Price.
8958	Oxidized Copper.....	8985	Brushed Brass.....	110	\$42.00
8959	“ “	8986	“ “	170	43.00
8960	“ “	8987	“ “	220	45.00
8961	“ “	8988	“ “	250	47.00
8962	“ “	8989	“ “	500	57.00

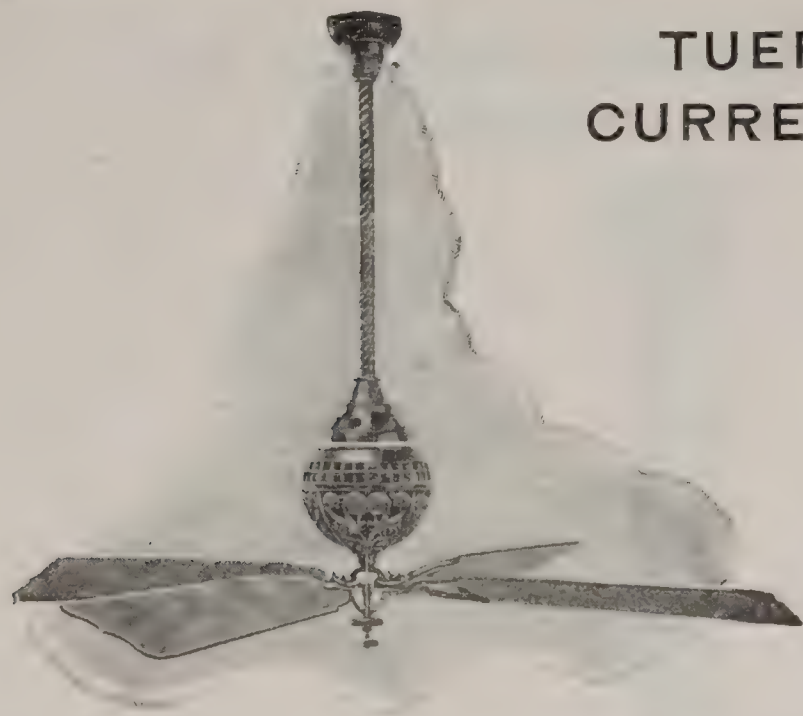
Price includes switch for 110 and 220-volt fans.

Extra charge made for other finishes.

Price for two-speed regulator add \$2.50 to list.

“ “ three “ “ “ \$3.50 “

Unless otherwise specified, all Ceiling Fan Motors will be shipped with the proper length of stem for 12-foot ceiling. Add \$1.00 list for each additional foot. Blades 7 feet 10 inches from floor.



TUERK ALTERNATING
CURRENT CEILING FAN.

TUERK CEILING FAN.

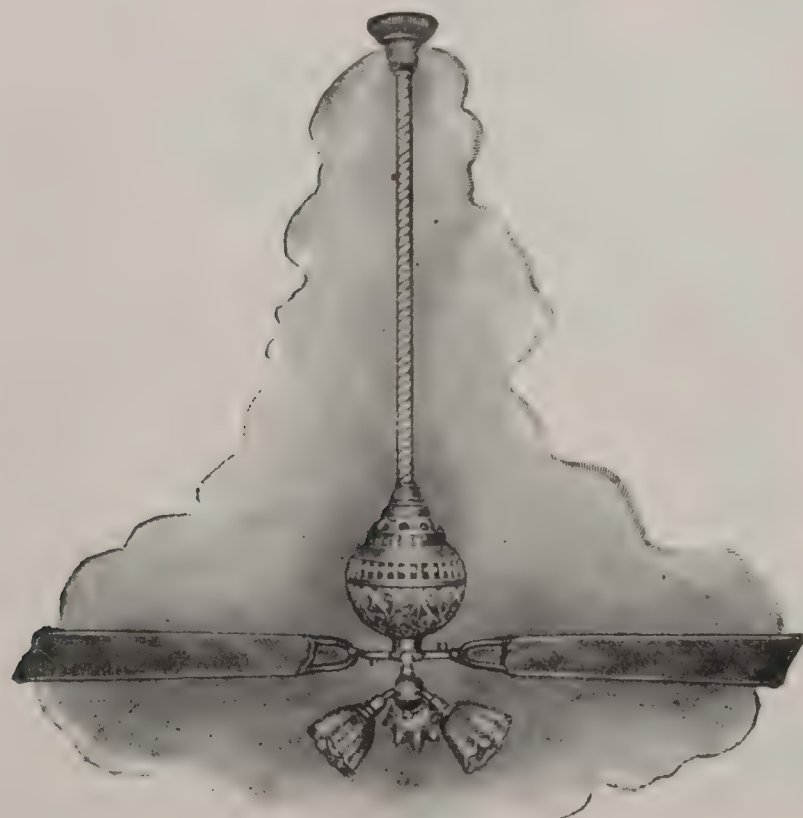
The design of the Tuerk Fan remains practically the same as originally placed upon the market. Advantage has been taken of any improvements possible in their electrical and mechanical construction. They are made with two and four Blades. Each Fan is provided with a starting switch and an attachment for adjusting the angle of the blades while running.

Spread of Blades, 60 inches; width, 8 inches. Speed on both high and low frequencies, 175 revolutions per minute. Current consumed, 105 Watts. Cycles, 40 to 140. Voltages, 52 to 125. On the Four Blade Fan two of the blades are stationary.

Bronze, Bower Barff or Oxidized Copper Finish.

List No.				Price.
3660	Two Blade,	60 Cycles.	52 Volts.....	\$50 00
3661	"	60 "	100, 108 Volts.....	50 00
3662	"	60 "	108, 115 Volts.....	50 00
3663	"	125 "	52 Volts.....	50 00
3664	"	125 "	100, 108 Volts.....	50 00
3665	"	122 "	108, 115 Volts.....	50 00
3666	Four Blade,	60 "	52 Volts.....	52 25
3667	"	60 "	100, 108 Volts.....	52 25
3668	"	60 "	108, 115 Volts.....	52 25
3669	"	125 "	52 Volts.....	52 25
3680	"	125 "	100, 108 Volts.....	52 25
3681	"	125 "	108, 115 Volts.....	52 25

Nickel or Brush Brass finish, \$4.00 list extra. Ivory and Gold finish \$5.00 list extra. For 200, 220 and 230 Volt Motors add \$1.00 to net price. Unless otherwise ordered, stems for 12-foot ceiling will be shipped. For longer stems add \$1.00 extra per foot.



TUERK ALTERNATING
CURRENT ELECTROLIER
FAN.

These Fans are supplied with Starting Switch, but without Blade Adjuster. They have the same sweep of Blades as the Regular Fan, same speed and consume the same amount of current. They are furnished for any Cycle or Voltage. Price list of Electrolier for Two or Four Blade Fan, finished same as body of Fan, with Sockets and Shade Holders.

	Price.
Four Lights, extra	\$6 60
Three " "	6 00
Two " "	5 50
Without Sockets and Shade Holders.	
Four Lights, extra	5 20
Three " "	5 00
Two " "	4 80

These prices must be added to prices of the Fans on upper part of page to obtain cost of the Electrolier Fan complete.

HUNTER ALTERNATING CURRENT
CEILING FAN.

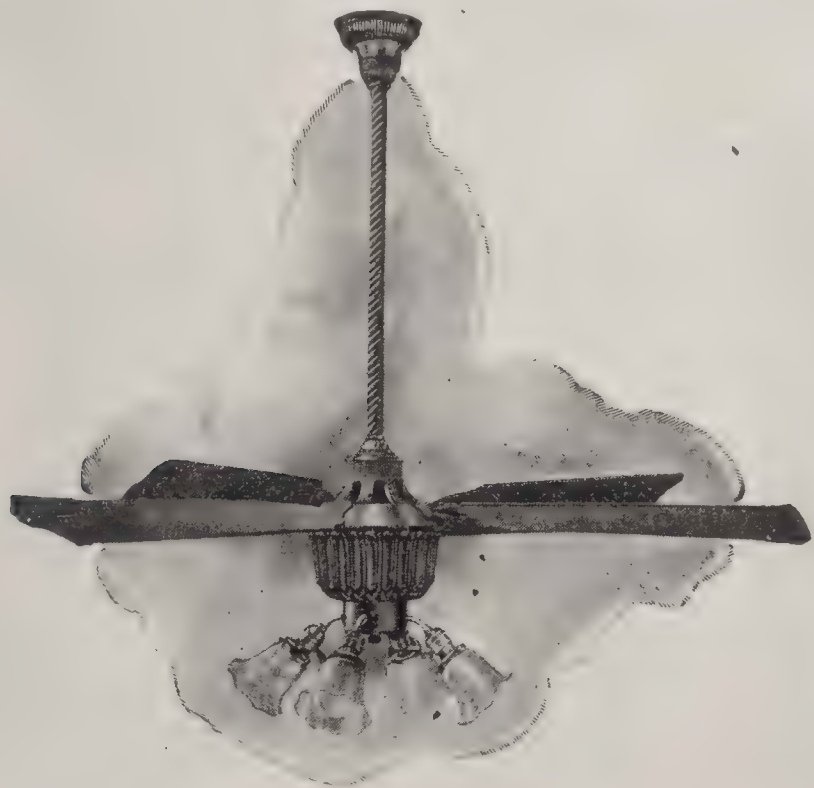


The Hunter Fan has a speed of 175 R. P. M., carrying Two or Four Blades of 60-inch spread and width of 8 inches, at a maximum current consumption of 110 Watts. It is equipped with a Two-Speed Regulator and Starting Switch, placed at the bottom and so arranged that any Fan can be made into an Electrolier very easily. The Hunter Fan is supplied for 40, 50 and 60 Cycles only and Voltages from 50 to 220.

Oxidized Copper or Bronze Finish.

List No.				Price.
13560	Two Blade, 60 Cycles.	52 Volts.....		\$45 00
13561	" 60 "	100, 108 Volts.....		45 00
13562	" 60 "	108, 115 Volts.....		45 00
13563	Four Blade, 60 "	52 Volts.....		47 25
13564	" 60 "	100, 100 Volts.....		47 25
13565	" 60 "	108, 105 Volts.....		45 00

For Voltages 150 to 220, add to list \$2.00. For Cycles 40 or 50, add to list \$4.50. All Fans are furnished with Stems for ceilings up to and including 12 feet. For additional heights add \$1.00 per foot list.



HUNTER CEILING FAN
WITH ELECTROLIER.

The Hunter Fan is constructed so that the Electrolier Attachment can be made by simply removing the Plugs at the side of the Switch Case, and replacing them with Curved Electric Fixture Nipples for holding Sockets, Shades, etc. They are wired with Independent Lighting Circuit, so the Lights and Fan are independent of each other. They are made so that two or four lights can be used. Nipples, Key Sockets and Shade Holders are extra.

List No.		Price.
13566	Fittings for Two Lights, Oxidized Copper Finish	\$1 85
13567	Fittings for Four Lights, Oxidized Copper Finish.....	3 70

These prices are to be added to prices of Fans on upper part of page to obtain cost of Electrolier complete.

VENTILATING FAN MOTORS.

FOR DIRECT CURRENT.



This Fan is made for 115 and 230 Volts direct current, 12 and 16-inch Blades. The finish is Black Enamel with Polished Brass Fan. Ventilating Fans are a necessity in many places and the above outfit will be found to give good service at small cost.

List No.	Mfrs. No.	Dia. of Fan.	Volts.	Price.
13570	34009	12-in.	115	\$26 00
13571	34010	12-in.	230	28 00
13572	34011	16-in.	115	34 00
13573	34012	16-in.	230	36 00

SPEED CONTROLLERS FOR DIRECT CURRENT MOTORS.

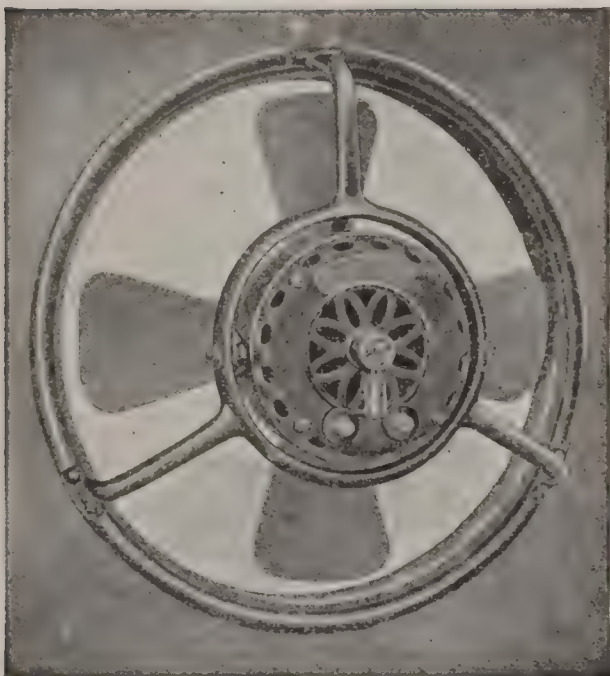
13574	34034	12-in.	115	4 00
13575	34035	12-in.	230	4 00
13576	34036	16-in.	115	4 50
13577	34037	16-in.	230	4 50

FOR ALTERNATING CURRENT.

These Fans operate on Alternating Current and are made to work on the following Voltages.

12-inch Fan.

List No.	Mfrs. No.	Cycles.	Volts.	Price.
13578	35307	25	110	\$26 00
13579	35308	40	110	26 00
13580	34025	60	100, 115	24 00
13581	34026	60	190, 220	24 00
13582	34027	125, 140	100, 115	24 00
13583	34028	125, 140	190, 220	24 00



16-inch Fan.

13584	34029	60	100, 115	30 00
13585	34030	60	190, 220	30 00
13586	34031	125, 140	100, 115	30 00
13587	34032	125, 140	190, 220	30 00

SPEED CONTROLLERS FOR ALTERNATING CURRENT MOTORS.

12-inch Fans.

List No.	Mfrs. No.	Cycles.	Volts	Price.
13588	35309	25	110	\$3 50
13589	35310	40	110	3 50
13590	28604	60	100, 115	3 50
13591	26376	60	190, 220	3 50
13592	28606	125, 140	100, 115	3 50
13593	28607	125, 140	190, 220	3 50

16-inch Fans.

13594	28608	60	100, 115	4 00
13595	26381	60	190, 220	4 00
13596	28610	125, 140	100, 115	4 00
13597	28611	125, 140	190, 220	4 00

These Ventilating Fan Motors are useful in offices, kitchens, dormitories, shops and stores, where it is desirable to remove not more than about 3,500 cubic feet of free air per minute. They are shipped complete ready for use, with Motor, Fan and Tripod.

GLASS INSULATORS.

PONY INSULATOR.



List No. 3917.

Diameter at base, $2\frac{1}{4}$ inches.

Height, $3\frac{1}{2}$ inches.

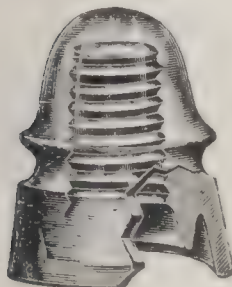
Approximate weight per 1000, packed, 700 lbs.

List No.

Price.

3917 Per 100.....**\$2.50**

PONY DOUBLE PETTICOAT.



List No. 3916.

Diameter at base, $2\frac{7}{8}$ inches.

Height, $3\frac{1}{2}$ inches.

Approximate weight per 1000, packed, 1000 lbs.

List No.

Price.

3916 Per 100.....**\$3.30**

PONY DOUBLE GROOVE.



List No. 3919.

Diameter at base, $2\frac{1}{4}$ inches.

Height, $3\frac{5}{8}$ inches.

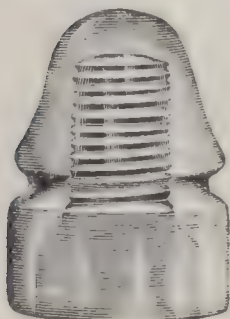
Approximate weight per 1000, packed, 800 lbs.

List No.

Price.

3919 Per 100.....**\$2.50**

REGULAR INSULATOR.



List No. 3912.

Diameter at base, $2\frac{3}{4}$ inches.

Height, $3\frac{7}{8}$ inches.

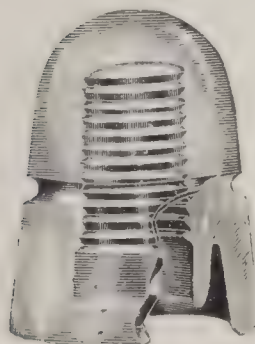
Approximate weight per 1000, packed, 1130 lbs.

List No.

Price.

3912 Per 100.....**\$4.00**

STANDARD WESTERN UNION DOUBLE PETTICOAT.



List No. 3915.

Diameter at base, 3 inches.

Height, 4 inches.

Approximate weight per 1000, packed, 1550 lbs.

List No.

Price.

3915 Per 100.....**\$4.00**

LONG DISTANCE PATTERN.



List No. 3914.

Diameter at base, $2\frac{3}{8}$ inches.

Height, $3\frac{3}{4}$ inches.

Approximate weight per 1000, packed, 1060 lbs.

List No.

Price.

3914 Per 100.....**\$4.20**



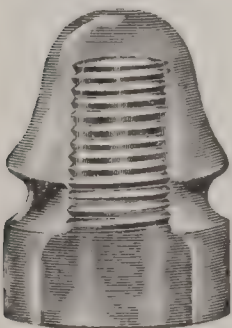
GLASS INSULATORS.

WESTERN UNION SINGLE PETTICOAT.

Diameter at base, 2 $\frac{5}{8}$ inches. Height, 4 $\frac{3}{8}$ inches.

Approximate weight per 1000, packed, 1385 lbs.

List No.	Price.
3910 Per 100.....	\$5.40

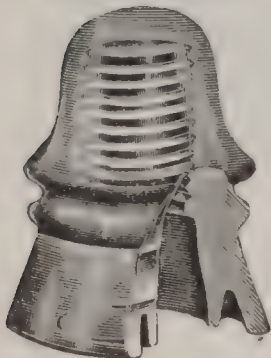


DEEP GROOVE PATTERN.

Diameter at base, 2 $\frac{3}{4}$ inches. Height, 4 inches.

Approximate weight per 1000 packed, 1250 lbs.

List No.	Price.
3911 Per 100.....	\$4.50

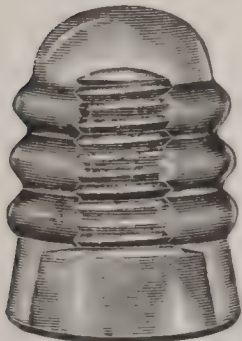


BELL DOUBLE PETTICOAT.

Diameter at base, 3 $\frac{1}{4}$ inches. Height, 4 $\frac{3}{8}$ inches.

Approximate weight per 1000, packed, 1620 lbs.

List No.	Price.
8965 Per 100	\$5.80

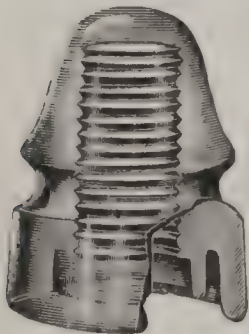


LARGE DOUBLE GROOVE.

Diameter at base, 2 $\frac{7}{8}$ inches. Height, 4 $\frac{1}{2}$ inches.

Approximate weight per 1000, packed, 1700 lbs.

List No.	Price.
8966 Per 100.....	\$8.30



DEEP GROOVE DOUBLE PETTICOAT.

Diameter at base. 3 inches. Height, 4 inches.

Approximate weight per 1000, packed, 1550 lbs.

List No.	Price.
3913 Per 100.....	\$5.00



EXTRA DEEP GROOVE DOUBLE PETTICOAT.

Diameter at base, 3 $\frac{1}{8}$ inches. Height, 4 $\frac{3}{8}$ inches.

Approximate weight per 1000, packed, 1550 lbs.

List No.	Price.
3924 Per 100.....	\$5.00

GLASS INSULATORS.

BROWN PONY INSULATOR.

For use on the lower end of a duplex pin or bracket.

Diameter, 2 3/8 inches. Height, 2 1/8 inches.
Approximate weight per 1000, packed, 700 lbs.

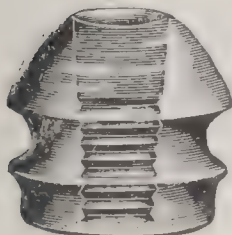


List No. 3923.

List No.	Price.
3923 Per 100.....	\$4.00

BROWN DEEP GROOVE INSULATOR.

Diameter, 2 3/4 inches. Height, 2 1/2 inches.
Approximate weight per 1000, packed, 965 lbs.

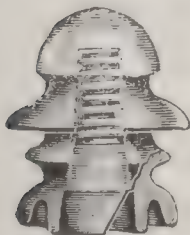


List No. 3922.

List No.	Price.
3922 Per 100.....	\$4.50

LOCKE TRANSPOSITION INSULATOR.

Diameter of flange, 3 1/2 inches. Height, 4 1/4 inches.
Approximate weight per 1000, packed, 2165 lbs.

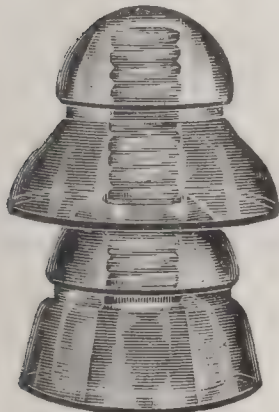


List No. 3921.

List No.	Price.
3921 Per 100.....	\$13.00

TWO-PIECE TRANSPOSITION.

Requires special pin.
Approximate weight 1000 pairs, packed, 2000 lbs.
Packed 125 pairs in bbl.

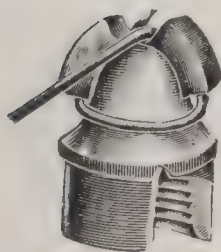


List No. 8967.

List No.	Price.
8967 Per 100.....	\$13.35

CABLE INSULATOR.

Diameter, 3 1/2 inches. Height, 5 1/4 inches.
Takes up to 1 inch cable.
Approximate weight per 1000, packed, 2110 lbs.

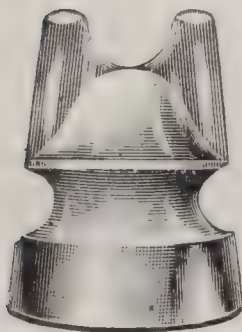


List No. 3920.

List No.	Price.
3920 Per 100.....	\$9.30

NEW JUMBO INSULATOR.

Diameter, 5 inches. Height, 7 inches.
Takes 2 inch cable in saddle.
Approximate weight per 1000, packed, 6000 lbs.
Requires special pin.



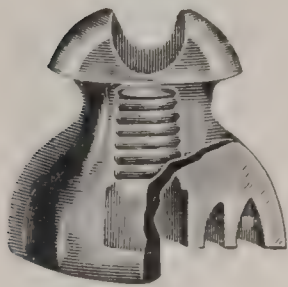
List No. 8968

List No.	Price.
8968 Per 100.....	\$36.00

GLASS INSULATORS.

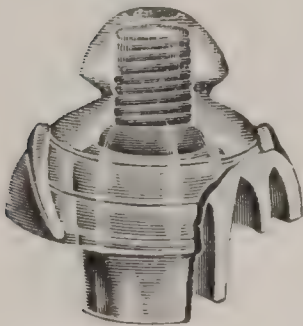
HIGH VOLTAGE.

TRIPLE PETTICOAT HIGH POTENTIAL.



List No. 3908.

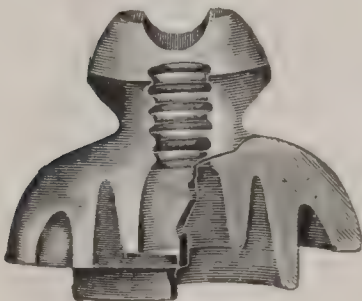
Diameter, 4½ inches. Height, 3½ inches.
Groove top or side, 1 inch. Weight, 1⅞ lbs.
Guaranteed Voltage, 10,000.
List No. Price.
3908 Per 100.....\$12.00



List No. 8969.

“MERSHON” HIGH POTENTIAL.

Diameter, 5½ inches. Height, 5 inches.
Surface distance, 8½ inches. Weight, 3 lbs.
Guaranteed Voltage, 20,000.
List No. Price.
8969 Per 100.....\$20.00



List No 3909

TRIPLE PETTICOAT HIGH POTENTIAL.

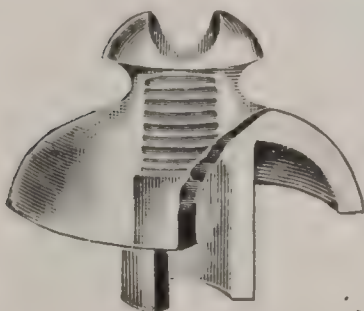
Diameter, 6 inches. Height, 4 inches.
Groove, 1¼ inches. Weight, 4½ lbs.
Guaranteed Voltage, 25,000.
List No. Price.
3909 Per 100.....\$21.25



List No. 8970.

TRIPLE PETTICOAT HIGH POTENTIAL.

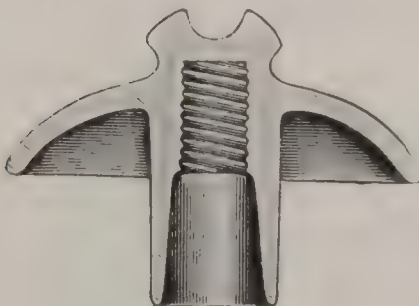
Diameter, 7 inches. Height, 4½ inches.
Groove 1⅛ inches. Weight, packed, 6½ lbs.
Guaranteed Voltage, 40,000.
List No. Price.
8970 Per 100.....\$26.25



List No. 8971.

NIAGARA HIGH POTENTIAL.

Diameter, 7½ inches. Height, 5½ inches.
Groove, 1⅝ inches. Weight, 4½ lbs.
Guaranteed Voltage, 45,000
List No. Price.
8971 Per 100.....\$23.13

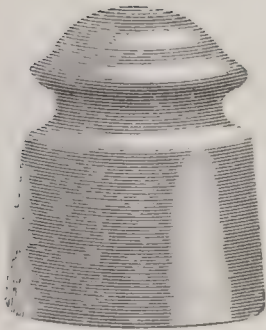


List No. 8972.

SPECIAL HIGH POTENTIAL.

Diameter, 9 inches. Height, 6 inches.
Groove, 1⅞ inch. Weight, packed, 6 lbs.
Guaranteed Voltage, 50,000.
List No. Price.
8972 Per 100.....\$37.50

PORCELAIN SCREW INSULATORS.



List No. 8973.

PORCELAIN PONY.

WHITE OR BROWN.

Diameter, 2 inches.

Height, $2\frac{3}{8}$ inches.Approximate weight, each, $6\frac{1}{2}$ oz.

List No.

Price.

8973 Per 100.....\$3.25

TYPE, IMPERIAL No. 4.



List No. 8974.

Diameter, $3\frac{1}{2}$ inches.Height, $3\frac{1}{4}$ inches.

Surface distance, 5 inches.

Groove, $3\frac{1}{4}$ inches.

Test voltage, 20,000.

Weight, 1 lb.

List No.

Price.

8974 Per 100.....\$30.00



List No. 8975.

TYPE, IMPERIAL No. 3.

Diameter, $3\frac{1}{2}$ inches.Height, $3\frac{1}{8}$ inches.

Surface distance, 5 inches.

Groove, $1\frac{1}{4}$ inches.

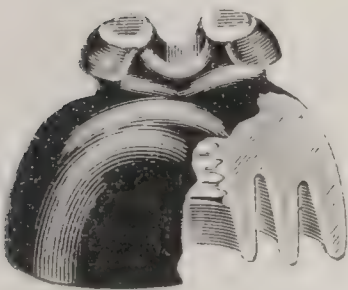
Test voltage, 20,000.

Weight, $1\frac{1}{8}$ lbs.

List No.

Price.

8975 Per 100.....\$30.00



List No. 8976.

TYPE, IMPERIAL No. 2.

Diameter, 5 inches.

Height, $3\frac{7}{8}$ inches.Surface distance, $9\frac{1}{2}$ inches.Groove, $\frac{7}{8}$ inches.

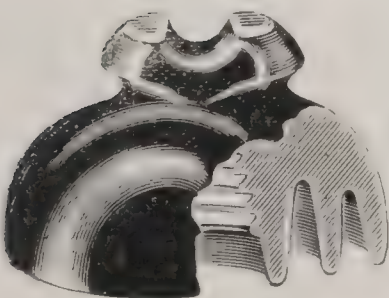
Test voltage, 40,000.

Weight, 3 lbs.

List No.

Price.

8976 Per 100.....\$55.00



List No. 8977.

TYPE, IMPERIAL No. 1.

Diameter, 6 inches.

Height, 4 inches.

Surface distance, $11\frac{1}{4}$ inches.Goove, $\frac{7}{8}$ inches.

Test voltage, 45,000.

Weight, 4 lbs.

List No.

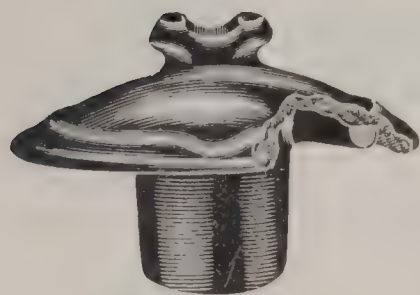
Price.

8977 Per 100.....\$82.50

PORCELAIN SCREW INSULATORS.

HIGH VOLTAGE.

TYPE, IMPERIAL No. 0.



List No. 8978.

Diameter, 6½ inches.
Surface distance, 8 inches.
Test voltage, 45,000.

Height, 4¾ inches.
Groove, ½ inch.
Weight, 2¾ lbs.

List No.	Price.
8978 Per 100.....	\$93.75



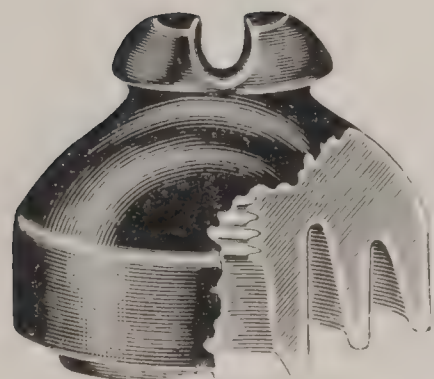
List No. 8979.

TYPE, REDLANDS.

Diameter, 6¾ inches.
Surface distance, 13 inches.
Test voltage, 66,000.

Height, 4⅞ inches.
Groove, ¾ inch.
Weight, 5½ lbs.

List No.	Price.
8979 Per 100	\$106.26



List No. 8980.

TYPE C.

Diameter, 7 inches.
Surface distance, 14 inches.
Test voltage, 66,000.

Height, 5¾ inches.
Groove, 1 inch.
Weight, 8 lbs.

List No.	Price.
8980 Per 100.....	\$187.50



List No. 8981.

TYPE E.

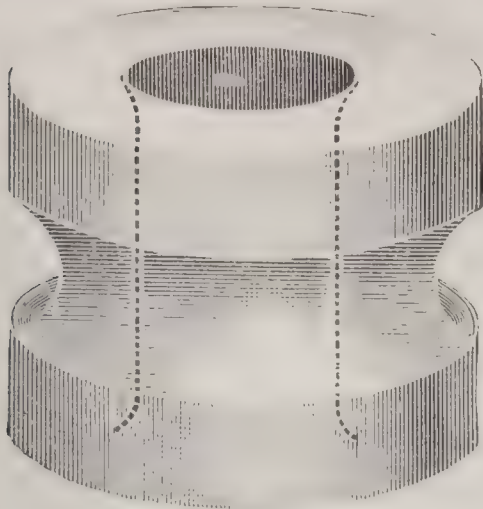
Diameter, 7½ inches.
Surface distance, 13½ inches.
Test voltage, 75 000.

Height, 6¾ inches.
Groove, 1¼ inch
Weight, 9 lbs.

List No.	Price.
8981 Per 100.....	\$437.50

PORCELAIN INSULATORS.

CUTS HALF SIZE.



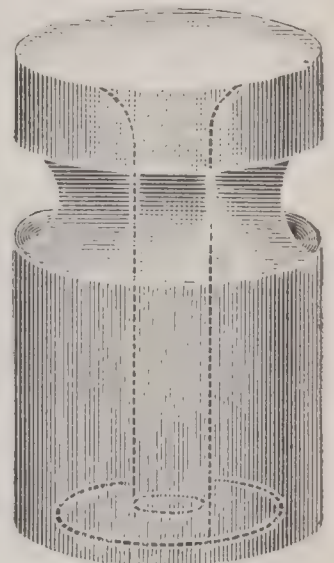
List No. 0.

Standard No. 0.

Height, $2\frac{1}{4}$ in. Diameter, 3 in.
Hole, $1\frac{1}{8}$ in. Groove, 1 in.
Standard package, bbl. lots, 350.
List No. 0 Per 1000.....Price, \$146 68

Standard No. 1.

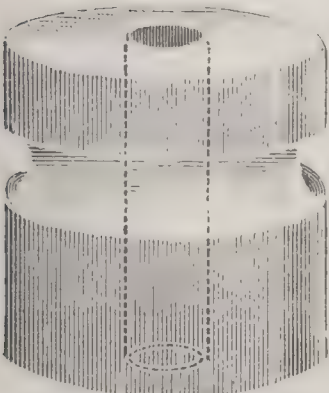
Height, 3 in Diameter, $2\frac{1}{8}$ in.
Hole, $\frac{7}{8}$ in. Groove, $\frac{3}{4}$ in.
Standard package, bbl. lots, 650.
List No 1 Per 1000.....Price, \$88 00



List No. 1.

Standard No. 2.

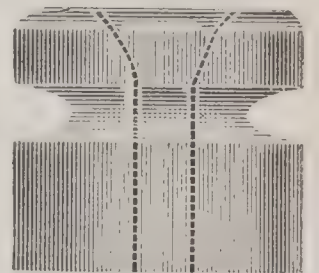
Height, 2 inches. Diameter, 2 inches.
Hole, $\frac{1}{2}$ inch. Groove, $\frac{1}{2}$ inch.
Standard package, bbl. lots, 850.
List No. 2 Per 1000.....Price, \$41 34



List No. 2.

Standard No. 3.

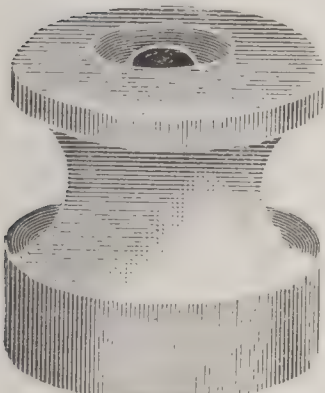
Height, $1\frac{3}{4}$ inch. Diameter, 2 inches.
Hole, $\frac{7}{8}$ inch. Groove, $\frac{7}{8}$ inch.
Standard package, bbl. lots, 1000.
List No. 3 Per 1000.....Price, \$34 68



List No. 3.

Standard No. 3, W. G.

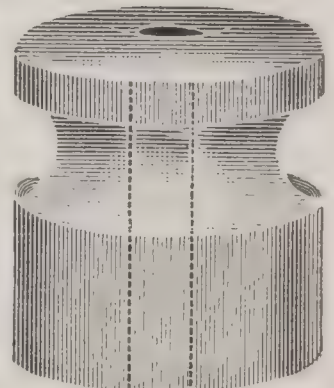
Height, $1\frac{3}{4}$ inch. Diameter, 2 inches.
Hole, $\frac{7}{8}$ inch. Groove, $\frac{3}{4}$ inch.
Standard package, bbl. lots, 1000.
List No. 3, W. G. Per 1000.....Price, \$34 68



List No. 3, W. G.

Standard No. 3 1/2.

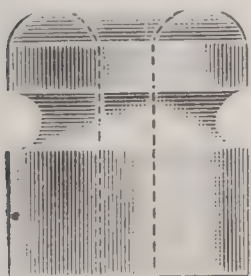
Height, 2 inches. Diameter, 2 inches.
Hole, $\frac{7}{8}$ inch. Groove, $\frac{7}{8}$ inch.
Standard package, bbl. lots, 1000.
List No. 3 1/2 Per 1000.....Price, \$34 68



List No. 3 1/2.

Standard No. 4.

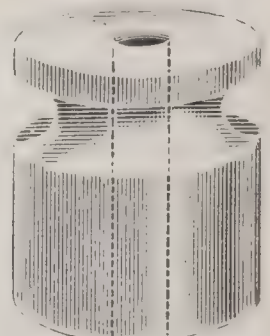
Height, $1\frac{1}{8}$ inch. Diameter, $1\frac{1}{2}$ inch.
Hole, $\frac{3}{8}$ inch. Groove, $\frac{3}{8}$ inch.
Standard package, bbl. lots, 1800.
List No. 4 Per 1000.....Price, \$12 50



List No. 4.

Standard No. 4 1/2.

Height, $1\frac{7}{8}$ inch. Diameter, $1\frac{1}{2}$ inch.
Hole, $\frac{3}{8}$ inch. Groove, $\frac{7}{8}$ inch.
Standard package, bbl. lots, 1650.
List No. 4 1/2 Per 1000.....Price, \$14 00



List No. 4 1/2.

Standard No. 5.

Height, $1\frac{1}{4}$ inch. Diameter, 1 inch.
Hole, $\frac{1}{4}$ inch. Groove, $\frac{5}{8}$ inch.
Standard package, bbl. lots, 5000.
List No 5 Per 1000.....Price, \$8 25



List No. 5.

Standard No. 5 1/2.

Height, $1\frac{5}{8}$ inch. Diameter, 1 inch.
Hole, $\frac{1}{4}$ inch. Groove, $\frac{5}{8}$ inch.
Standard package, bbl. lots, 4000.
List No. 5 1/2 Per 1000.....Price, \$9 00



List No. 5 1/2.

NOTE:—Nos. 4 and 5 insulators do not fulfill the requirements of the National Board of Fire Underwriters for electric light work. Nos 4 1/2 and 5 1/2 are the corresponding insulators which are of the correct size and meet all the requirements.

PORCELAIN INSULATORS.

CUTS HALF SIZE.

Standard No. 6.

Height, $\frac{7}{8}$ inch. Diameter, $1\frac{1}{8}$ inch.
 Hole, $\frac{3}{4}$ inch. Groove, $\frac{1}{4}$ inch.
 Standard package, bbl. lots, 5000.
 List No. 6 Per 1000.....Price, \$9 09



List No. 6.

Standard No. 7.

Height, $\frac{3}{4}$ inch. Diameter, $\frac{7}{8}$ inch.
 Hole, $\frac{1}{4}$ inch. Groove, $\frac{1}{8}$ inch.
 Standard package, bbl. lots, 5000.
 List No. 7 Per 1000.....Price, \$9 00



List No. 7.

Standard No. 8.

Height, $1\frac{1}{8}$ inch. Diameter, 1 inch.
 Hole, $\frac{1}{4}$ inch. Groove, $\frac{5}{16}$ inch.
 Standard package, bbl. lots, 5000.
 List No. 8 Per 1000.....Price, \$9 00



List No. 8.

Standard No. 9.

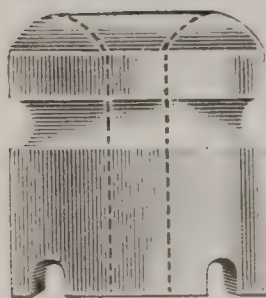
Height, $1\frac{1}{8}$ inch. Diameter, $\frac{5}{8}$ inch.
 Hole, $\frac{3}{16}$ inch. Groove, $\frac{1}{8}$ inch.
 Standard Package, bbl. lots, 5000.
 List No. 9 Per 1000.....Price, \$9 00



List No. 9.

Standard No. 10.

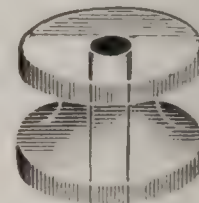
Height, $1\frac{3}{4}$ inch. Diameter, $1\frac{5}{8}$ inch.
 Hole, $\frac{3}{8}$ inch. Groove, $\frac{3}{8}$ inch.
 Standard package, bbl. lots, 2000.
 List No. 10 Per 1000.....Price, \$20 00



List No. 10.

Standard No. 11.

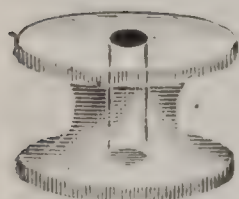
Height, $1\frac{1}{8}$ inch. Diameter, $1\frac{1}{8}$ inch.
 Hole, $\frac{1}{4}$ inch. Groove, $\frac{1}{4}$ inch.
 Standard package, 3000.
 List No. 11 Per 1000.....Price, \$16 00



List No. 11.

Standard No. 12.

Height, $1\frac{3}{8}$ inch. Diameter, $1\frac{3}{8}$ inch.
 Hole, $\frac{1}{8}$ inch. Groove, $\frac{1}{8}$ inch.
 Standard package, 3000.
 List No. 12 Per 1000.....Price, \$18 68



List No. 12.

Standard No. 13.

Height, $\frac{3}{4}$ inch. Diameter, $1\frac{5}{16}$ inch.
 Hole, $\frac{1}{8}$ inch. Groove, $\frac{5}{8}$ inch.
 Standard package, 3,000.
 List No. 13 Per 1000.....Price, \$18 68



List No. 13.

Standard No. 14.

Height, $\frac{3}{4}$ inch. Diameter, $\frac{7}{8}$ inch.
 Hole, $\frac{1}{8}$ inch. Groove, $\frac{1}{8}$ inch.
 Standard package, 3000.
 List No. 14 Per 1000.....Price, \$10 68



List No. 14.

Standard No. 15.

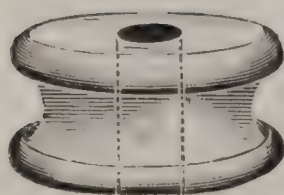
Height, $1\frac{5}{8}$ inch. Diameter, $1\frac{3}{4}$ inch.
 Hole, $\frac{1}{4}$ inch. Groove, $\frac{1}{2}$ inch.
 Standard package, bbl. lots, 1400.
 List No. 15 Per 1000.....Price, \$32 00



List No. 15.

Standard No. 16.

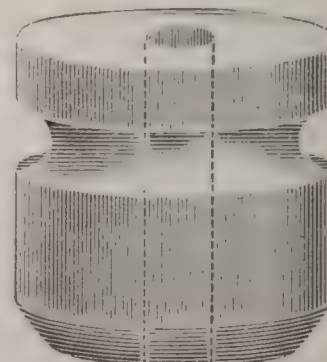
Height, 1 inch. Diameter, $1\frac{3}{4}$ inch.
 Hole, $\frac{1}{2}$ inch. Groove, $\frac{3}{8}$ inch.
 Standard package, 500.
 List No. 16 Per 1000.....Price, \$26 68



List No. 16.

Standard No. 19.

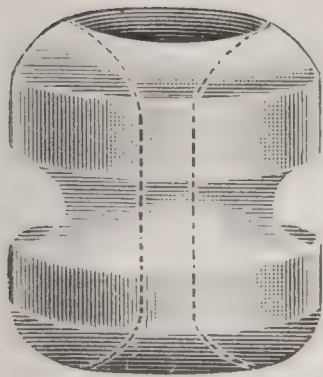
Height, $1\frac{7}{8}$ inch. Diameter, 2 inch.
 Hole, $\frac{7}{16}$ inch. Groove, $\frac{1}{2}$ inch.
 Standard package, 500.
 List No. 19 Per 1000.....Price, \$41 34



List No. 19.

PORCELAIN INSULATORS.

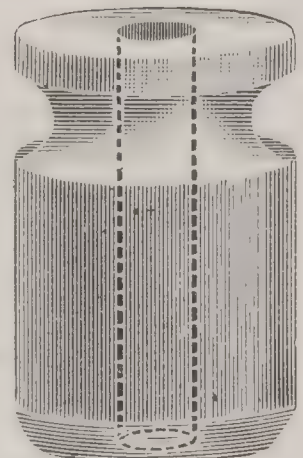
CUTS HALF SIZE.



List No. 20.

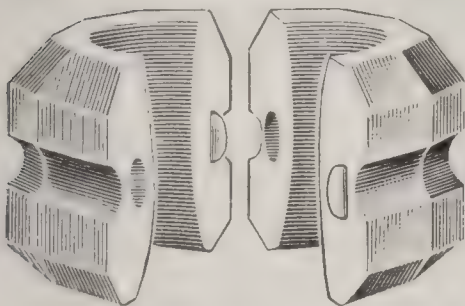
Standard No. 20.
 Height, 2 inches. Diameter, 2 inches.
 Hole, $\frac{3}{8}$ inch. Groove, $\frac{5}{8}$ inch.
 Standard Package, bbl. lots, 1000.
 List No. 20 Per 1000.....Price, \$42 68

Standard No. 21 (B. X.)
 Height, $2\frac{7}{8}$ inches. Diameter, 2 inches.
 Hole, $\frac{1}{2}$ inch. Groove, $\frac{1}{8}$ inch.
 Standard package, bbl. lots, 500.
 List No. 21 (B.X.) Per 1000, Price, \$106 68



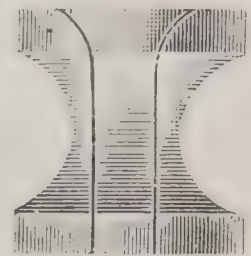
List No. 21 B X.

Standard No. 22 (Victor.)
 Height, $1\frac{5}{8}$ in. Diameter, $2\frac{1}{8}$ in.
 Hole, 1 in. Groove, $\frac{5}{16}$ in.
 Standard package, bbl. lots, 1300.
 List No. 22 Per 1000..Price, \$42 68



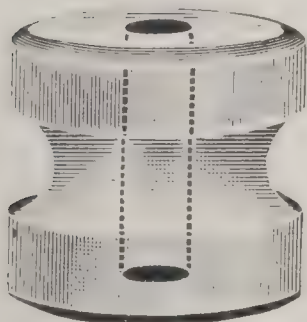
List No. 22.

Standard No. 23.
 Height, $1\frac{1}{2}$ in. Diameter, $1\frac{1}{2}$ in.
 Hole, $\frac{3}{8}$ in. Groove, 1 in.
 Standard package, bbl. lots, 2000.
 List No. 23 Per 1000..Price, \$29 34



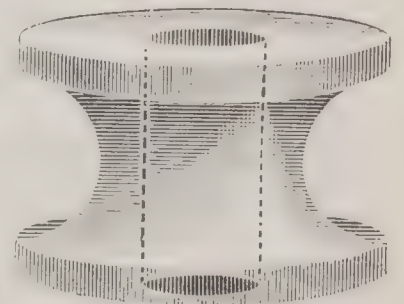
List No. 23

Standard No. 24.
 Height, $1\frac{3}{4}$ inch. Diameter, $1\frac{7}{8}$ inch.
 Hole, $\frac{7}{16}$ inch. Groove, $\frac{5}{8}$ inch.
 Standard package, bbl. lots, 1000.
 List No. 24 Per 1000.....Price, \$41 34



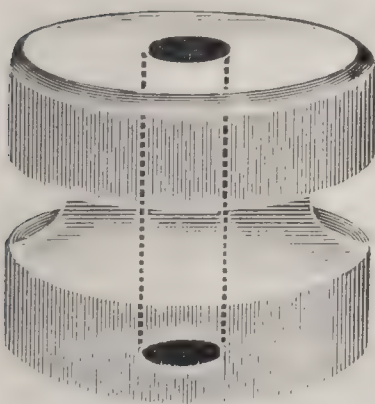
List No. 24

Standard No. 25.
 Height, $1\frac{1}{2}$ inch. Diameter, $2\frac{1}{2}$ inches.
 Hole, $\frac{1}{8}$ inch. Groove, $1\frac{1}{16}$ inch.
 Standard package, bbl. lots, 750.
 List No. 25 Per 1000.....Price, \$73 34



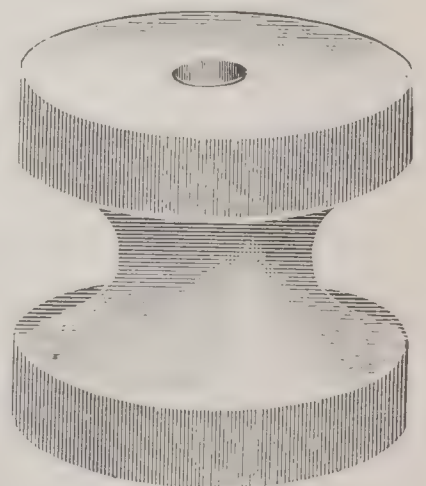
List No. 25.

Standard No. 26.
 Height, 2 inches. Diameter, $2\frac{1}{4}$ inches.
 Hole, $\frac{5}{8}$ inch. Groove, $\frac{1}{8}$ inch.
 Standard package, bbl. lots, 800.
 List No. 26 Per 1000.....Price, \$74 68



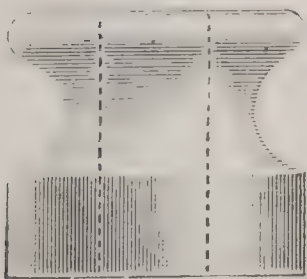
List No. 26.

Standard No. 29.
 Height, $2\frac{3}{8}$ inches. Diameter, $2\frac{1}{2}$ inches.
 Hole, $\frac{1}{2}$ inch. Groove, $1\frac{3}{8}$ inch.
 Standard package, bbl. lots, 400.
 List No. 29 Per 1000.....Price, \$100 00



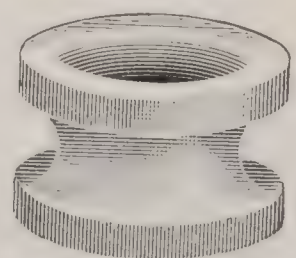
List No. 29.

Standard No. 30.
 Height, $1\frac{1}{8}$ inch. Diameter, $1\frac{5}{8}$ inch.
 Hole, $\frac{1}{16}$ inch. Groove, $\frac{3}{4}$ inch.
 Standard package, bbl. lots, 1000.
 List No. 30 Per 1000.....Price, \$41 34



List No. 30.

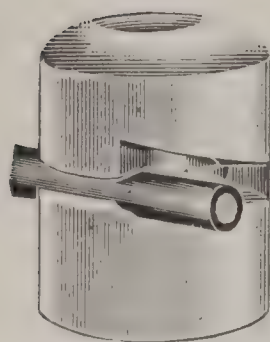
Standard No. 31.
 Height, 1 inch. Diameter, $1\frac{3}{4}$ inch.
 Hole, $\frac{5}{8}$ inch. Groove, $\frac{9}{16}$ inch.
 Standard package, bbl. lots, 1500.
 List No. 31 Per 1000.....Price, \$18 68



List No. 31.

PORCELAIN INSULATORS.

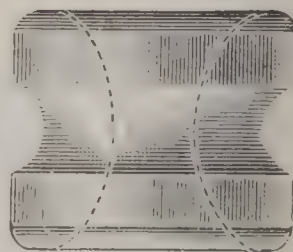
CUTS HALF SIZE.



List No. 33.

Security No. 33.

Height, $1\frac{1}{8}$ inch. Diameter, $1\frac{1}{8}$ inch.
 Hole, $\frac{5}{16}$ inch. Groove, $\frac{5}{16}$ inch.
 Standard package, bbl. lots, 1500.
 List No. 33 Per 1000.....Price, \$33 34



List No. 36.

Standard No. 36.

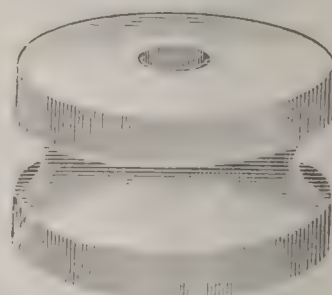
Height, $1\frac{3}{4}$ inch. Diameter, $1\frac{3}{4}$ inch.
 Hole, $\frac{1}{2}$ inch. Groove, $\frac{3}{4}$ inch.
 Standard package, bbl. lots, 1800
 List No. 36 Per 1000.....Price, \$36 00



List No. 39.

Standard No. 39.

Height, $1\frac{3}{4}$ inch. Diameter, $2\frac{1}{2}$ inch.
 Hole, $\frac{3}{4}$ inch. Groove, $1\frac{3}{8}$ inch.
 Standard package, 500.
 List No. 39 Per 1000.....Price, \$73 34



List No. 41.

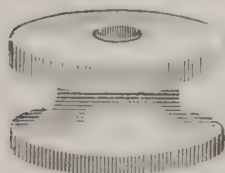
Standard No. 41.

Height, $1\frac{1}{4}$ inch. Diameter, 2 inches.
 Hole, $\frac{3}{8}$ inch. Groove, $\frac{1}{2}$ inch.
 Standard package, 250.
 List No. 41 Per 1000Price, \$44 00

Standard No. 45.

(SPOOL INSULATOR.)

Height $\frac{3}{4}$ inch. Diameter, $1\frac{1}{4}$ inch.
 Hole, $\frac{5}{8}$ inch. Groove, $\frac{1}{2}$ inch.
 Standard package, 2500.
 List No. 45 Per 1000.....Price, \$18 68

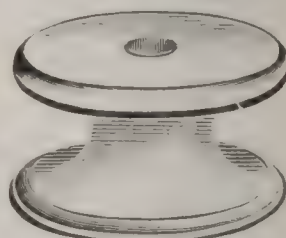


List No. 45.

Standard No. 46.

(SPOOL INSULATOR.)

Height, 1 inch. Diameter, $1\frac{1}{4}$ inch.
 Hole, $\frac{5}{8}$ inch. Groove, $\frac{1}{2}$ inch.
 Standard package, 2000.
 List No. 46 Per 1000.....Price, \$26 68

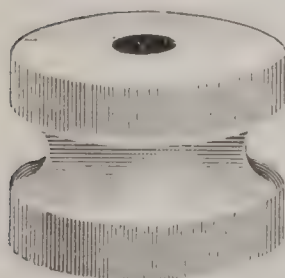


List No. 46.

Standard No. 47.

(SPOOL INSULATOR.)

Height, $1\frac{1}{4}$ inch. Diameter, $1\frac{3}{4}$ inch.
 Hole, $\frac{7}{8}$ inch. Groove, $\frac{1}{2}$ inch.
 Standard package, bbl. lots, 1500.
 List No. 47 Per 1000.....Price, \$32 00

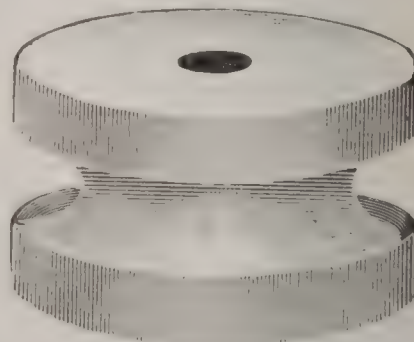


List No. 47.

Standard No. 48.

(SPOOL INSULATOR.)

Height, $1\frac{1}{2}$ inch. Diameter, $2\frac{1}{2}$ inches.
 Hole, $\frac{5}{8}$ inch. Groove, $\frac{3}{4}$ inch.
 Standard package, bbl. lots, 1000.
 List No. 48 Per 1000.....Price, \$73 34



List No. 48.

Standard No. 399.

Height, $\frac{2}{8}$ inch. Hole, $\frac{1}{4}$ inch.
 Standard package, 1000.
 List No. 399 Per 1000.....Price, \$16 00



List No. 399.

Standard No. 401.

Height, $\frac{5}{8}$ inch. Hole, $\frac{5}{8}$ inch.
 Standard package, 1000.
 List No. 401 Per 1000.....Price, \$13 34



List No. 401.

Standard No. 402.

Height, $1\frac{1}{8}$ inch. Hole, $\frac{3}{8}$ inch.
 Standard package, 5000.
 List No. 402 Per 1000.....Price, \$16 00



List No. 402.

Standard No. 403.

Height, 1 inch. Hole, $\frac{3}{8}$ inch.
 Standard package, 1000.
 List No. 403 Per 1000.....Price, \$20 66

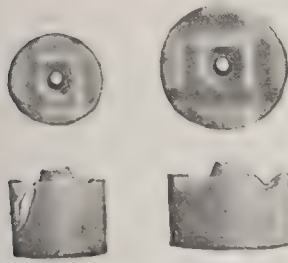


List No. 403.



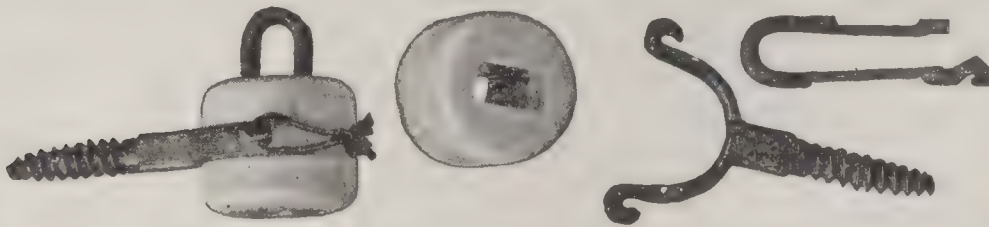
G. E. PORCELAIN KNOBS.

These knobs are designed for supporting single conductors, each knob being formed with slots to accommodate any one of four sizes of wire. They are made in two sizes, the larger of which is suitable for wire up to $\frac{5}{8}$ inch, and the smaller for wire up to $\frac{3}{8}$ inch in diameter.



List No.	Description	Package Quantity	Price Per 1000
9419	Complete knob for single wire up to $\frac{3}{8}$ inch diameter, holding wire 1 inch from wall.....	500	\$35 00
9420	Complete knob for single wire up to $\frac{5}{8}$ inch diameter, holding wire 1 inch from wall.....	500	50 00

G. E. PORCELAIN TREE INSULATOR.



INSULATOR, YOKE AND CAM, AND SUPPORTING PRONG.

This insulator was designed primarily for use in tree wiring, but will be found suitable for other purposes. The method of operation is simple. The wire is merely dropped into the iron loop, which is then pushed lengthwise through the porcelain insulator, and the cam lock snapped into position. To remove the flexible iron loop, a screw-driver is inserted in the slot in the cam lock, and the cam pried open which immediately releases the cables.

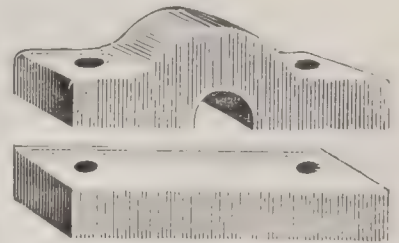
List No.	Description	Price.
69024	Porcelain Insulator with Yoke and Cam without screw prong	\$0 75
69025	Porcelain Insulator only.....	25
69026	Supporting Prong only, not included in List No. 69024.....	06

PORCELAIN CLEATS.

Standard No. 301.

Height, 1 inch. Width, $\frac{7}{8}$ inch.
Length, 2 inches. Groove, $\frac{1}{8}$ inch.
Standard package, 500.

List No. 301 Per 1000..Price, \$29 34

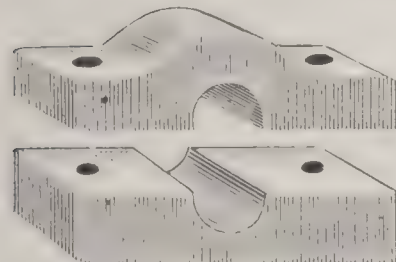


List No. 301.

Standard No. 302.

Height, $1\frac{1}{8}$ inch. Width, $\frac{7}{8}$ inch.
Length, 2 inches. Groove, $\frac{1}{8}$ inch.
Standard package, 500.

List No. 302 Per 1000..Price, \$30 66

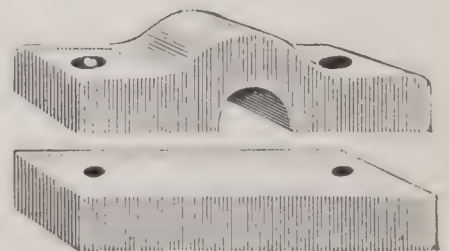


List No. 302.

Standard No. 306.

Height, $1\frac{1}{8}$ inch. Width, 1 inch.
Length, $2\frac{1}{4}$ inches. Groove, $\frac{1}{2}$ inch.
Standard package, 500.

List No. 306 Per 1000..Price, \$36 00

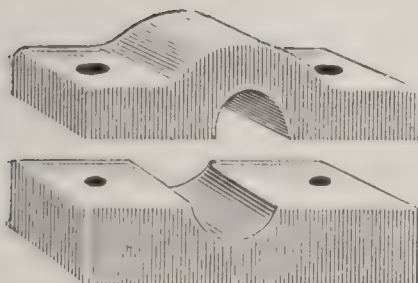


List No. 306.

Standard No. 307.

Height, $1\frac{1}{4}$ inch. Width, $1\frac{1}{8}$ inch.
Length, $2\frac{1}{4}$ inches. Groove, $\frac{1}{2}$ inch.
Standard package, 500.

List No. 307 Per 1000..Price, \$37 34



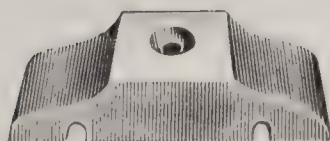
List No. 307.

Standard No. 314.

FOR TELEPHONE WIRING.

Width, $\frac{7}{8}$ inch. Length, $2\frac{1}{8}$ inches.
Standard package, 500.

List No. 314 Per 1000..Price, \$16 66



List No. 314.

Standard No. 333.

ONE WIRE TELEPHONE GLAZED CLEATS.

Height, $\frac{1}{2}$ inch. Width, $\frac{1}{2}$ inch.
Length, $1\frac{3}{4}$ inch. Groove, $\frac{1}{4}$ inch.
Standard package, 1000.

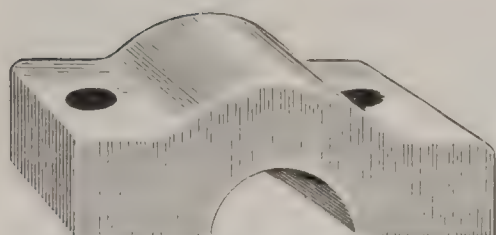
List No. 333 Per 1000..Price, \$9 34



List No. 333.

PORCELAIN CLEATS.

CUTS HALF SIZE.

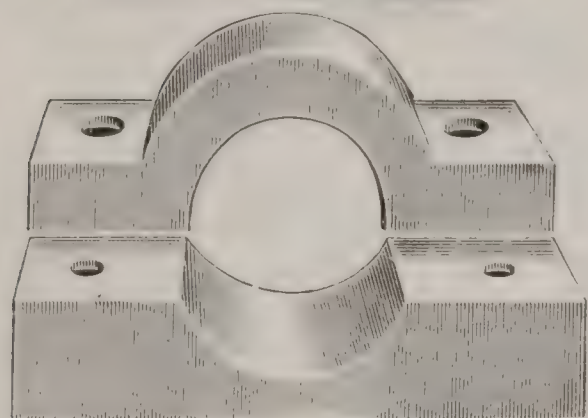
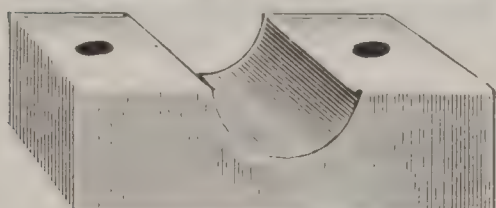


Standard No. 318.

Height.....	1 $\frac{3}{8}$ inch.
Width.....	1 $\frac{1}{8}$ "
Length.....	2 $\frac{1}{4}$ "
Groove.....	$\frac{3}{4}$ "

Standard package, 500.

List No. 318 Per 1000.....Price, \$80 00

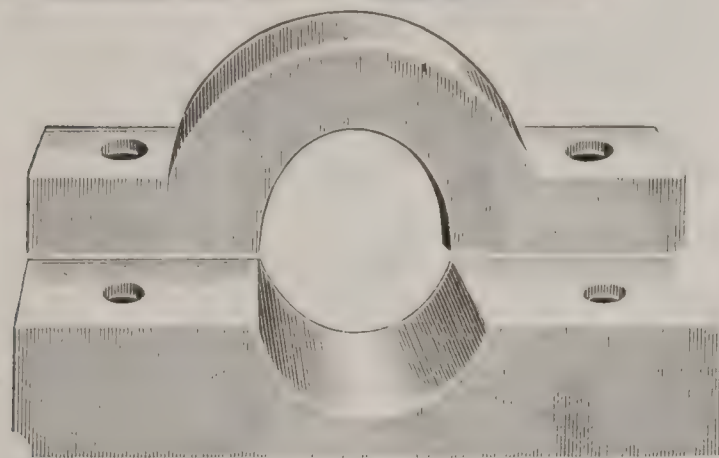


Standard No. 321.

Height.....	2 inch.
Width.....	1 $\frac{1}{4}$ "
Length.....	3 $\frac{1}{8}$ "
Groove.....	1 $\frac{3}{8}$ "

Standard package, bbl. lots, 1000.

List No. 321 Per 1000.....Price, \$120 00

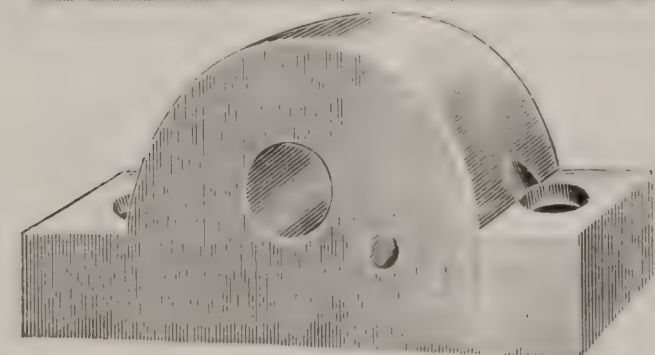


Standard No. 322.

Height.....	2 $\frac{3}{8}$ inch.
Width.....	1 $\frac{1}{8}$ "
Length.....	4 $\frac{1}{8}$ "
Groove.....	1 $\frac{3}{8}$ "

Standard package, 850.

List No. 322 Per 1000.....Price, \$160 00

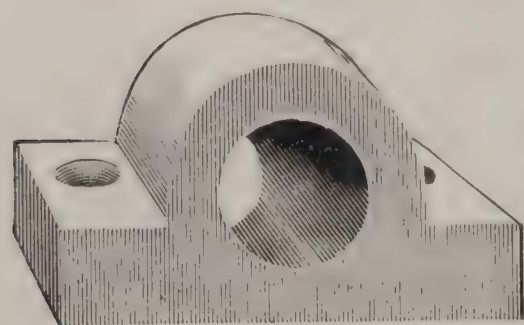


Standard No. 324.

Height.....	2 inch.
Width.....	1 $\frac{1}{4}$ "
Length.....	3 $\frac{1}{8}$ "
Hole.....	$\frac{5}{8}$ "

Standard package, bbl. lots, 250.

List No. 324 Per 1000.....Price, \$88 00



Standard No. 325.

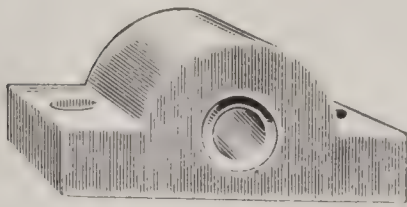
Height.....	1 $\frac{3}{4}$ inch.
Width.....	1 $\frac{1}{4}$ "
Length.....	3 $\frac{1}{8}$ "
Hole.....	$\frac{7}{8}$ "

Standard package, 250.

List No. 325 Per 1000.....Price, \$73 34

PORCELAIN CLEATS.

Standard No. 326.



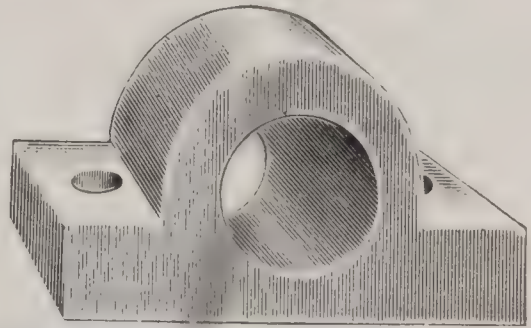
Height, $1\frac{1}{4}$ inch.
Length, $2\frac{3}{8}$ inches.

Width, 1 inch.
Hole, $\frac{3}{8}$ inch.

Standard package, bbl. lots, 500.

List No. 326 Per 1000.....Price, \$40 00

Standard No. 327.



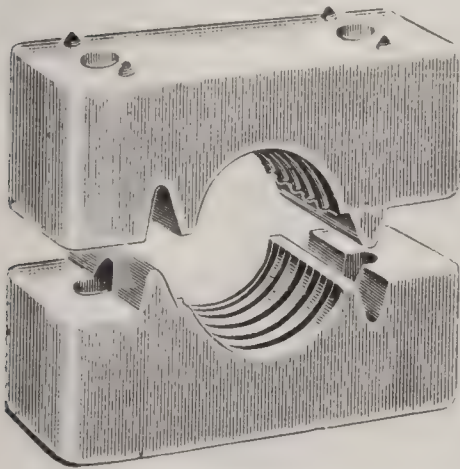
Height, $1\frac{1}{4}$ inch
Length, $3\frac{3}{8}$ inches.

Width, $1\frac{1}{8}$ inch.
Hole, $\frac{7}{8}$ inch.

Standard package, 250.

List No. 327 Per 1000.....Price, \$88 00

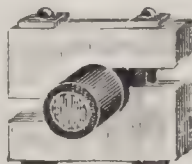
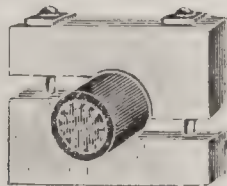
B. & D. ONE-WIRE CLEATS.



List No.	Mfrs. No.	Size R. C. Wire (B. & S.)	Size Hole.	Price Per 1000
345	1	14 to 6	$\frac{1}{8}$ in. to $\frac{3}{8}$ in.....	\$36 58
346	$1\frac{1}{2}$	10 to 2	$\frac{3}{16}$ in. to $\frac{7}{16}$ in.....	50 00
347	2	2 to 0	$\frac{3}{8}$ in. to $\frac{1}{2}$ in.....	60 00
348	$2\frac{1}{2}$	0 to 3/0	$\frac{1}{2}$ in. to $\frac{5}{8}$ in.....	72 00
349	3	3/0 to 200,000 C.M.	$\frac{9}{16}$ in. to $\frac{3}{4}$ in.....	95 00
350	$3\frac{1}{2}$	200,000 C. M. to 500,000 C. M.	$\frac{3}{4}$ in. to 1 in.....	120 00
351	4	500,000 C. M. to 1,000,000 C. M.	1 in. to $1\frac{1}{8}$ in.....	160 00
352	$4\frac{1}{2}$	1 000,000 C. M. to 2 000,000 C. M.	$1\frac{7}{8}$ in. to $1\frac{1}{2}$ in.....	400 00

Bases are full one inch from wire to bottom of cleat.

G. E. SINGLE-WIRE PORCELAIN CLEATS.

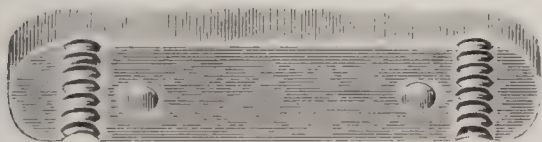


Single-wire glazed porcelain cleats are designed for use where wires larger than can be ordinarily accommodated in porcelain knobs and two or three-wire cleats, are to be installed. The surface of the slot is corrugated in order that the wire or cable used may be firmly gripped, and the cleat is arranged to take any one of several sizes of wire.

List No.	Description	Standard Package	List Price Per 1000
21660	For $\frac{1}{4}$ in. to $\frac{1}{2}$ in. Cable	250	\$43 50
21661	" $\frac{3}{8}$ in. to $\frac{3}{4}$ in. "	250	57 50
21662	" $\frac{1}{2}$ in. to $1\frac{1}{8}$ in. "	250	110 00
21663	" $\frac{3}{4}$ in. to $1\frac{1}{2}$ in. "	250	130 00

Catalogue number and price include two halves.

STANDARD TWO AND THREE-WIRE CLEATS.



Height, $1\frac{1}{8}$ inch.
Width, $\frac{5}{8}$ inch.

Length, $3\frac{3}{8}$ inches.
Groove, $\frac{3}{16}$ inch.

Standard package, 1000.



List No.	Description	Price.
3930	Two wire, glazed per 1000.....	\$26 00
3931	" unglazed, "	20 00
3933	Threc-wire glazed, "	26 00
3934	" unglazed, "	20 00

RACK INSULATORS, FORM B.

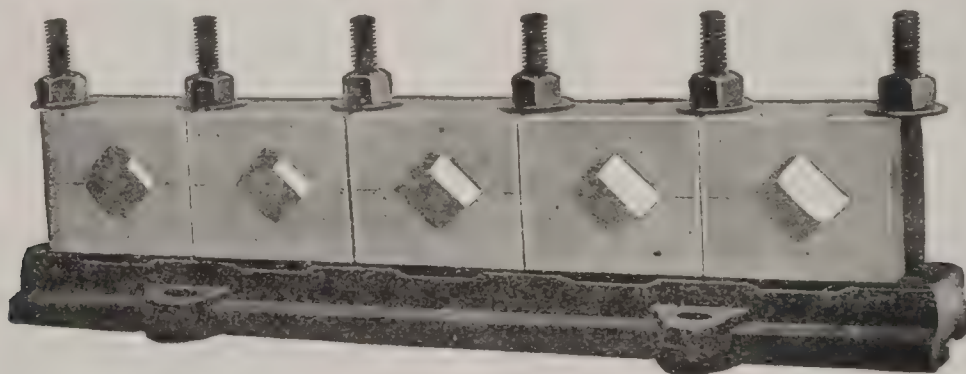
The G. E. Rack Insulators are the most compact and secure devices for supporting and insulating cables or bus-bars in stations, conduits or subways.



RACK INSULATOR FOR CABLES.

Rack List No. 69014. Insulators List No. 69010.

The complete device consists of a cast iron rack with wrought iron pins and nuts and porcelain pieces suitably grooved to clamp the cable or bus-bar. The porcelain pieces are of ample strength to withstand the strain or clamping and



RACK INSULATOR FOR BUS-BARS.

Rack List No. 69014. Insulators List No. 69011.

are so designed that they hold the cables firmly in place. Several different sizes of cable may be used with the same insulator, and the shape of the porcelain pieces also accommodates itself to any slight variation in either the insulator or the cable. Sections of the insulator may be removed without interfering with the remaining parts. The device combines perfect insulation with security and convenience.

PORCELAIN RACK INSULATORS.

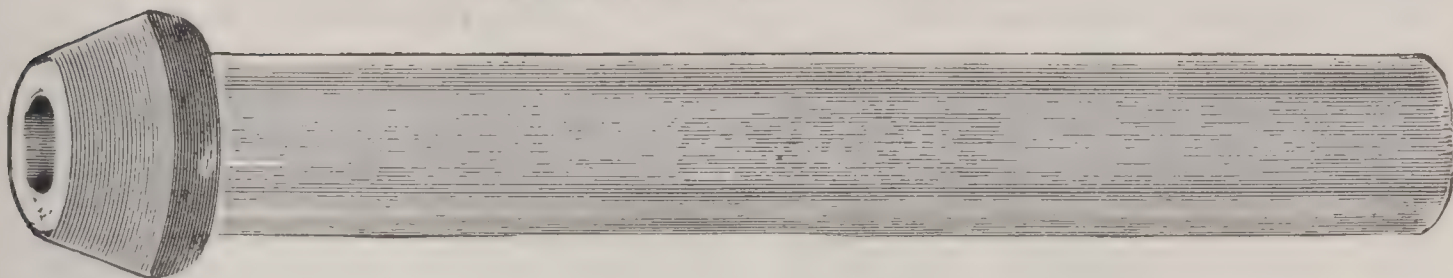
List No.	Description.	Price Each.
69009	For $\frac{1}{2}$ inch to 1 inch cable.....	\$0 15
69010	For 1 " to 2 " ".....	25
69011	For Bus-bars (used with racks, List Nos. 69012, 69013, 69014, and 69015, for bus-bars up to 2 inch by $\frac{1}{2}$ inch, and with racks, List Nos. 69016, 69017, 69018 and 69019, for bus-bars up to $2\frac{1}{2}$ inch by 1 inch.....	30

The List Number for Porcelain Insulator includes two halves.

INSULATOR RACKS.

List No.	Description.	Price.
69012	For 12 List No. 69010 or 69011.....	\$5 20
69013	For 8 " " " " ".....	3 70
69014	For 5 " " " " ".....	2 50
69015	For 3 " " " " ".....	1 70
69016	For 12 " " 68911.....	5 00
69017	For 8 " " " " ".....	3 60
69018	For 5 " " " " ".....	2 50
69019	For 3 " " " " ".....	1 70
69020	For 12 " " 69009.....	4 00
69021	For 8 " " " " ".....	2 80
69022	For 5 " " " " ".....	1 80
69023	For 3 " " " " ".....	1 30

PORCELAIN TUBES.



Tube dimensions conform to the rules of the Underwriters' Board.

PRICE PER 100.

Length of inches Under Head	5-16 Hole, 9-16 Outside Diameter	3/8 Hole, 11-16 Outside Diameter	1/2 Hole, 13-16 Outside Diameter	5/8 Hole, 15-16 Outside Diameter	3/4 Hole, 1 3-16 Outside Diameter	1 Hole, 1 7-16 Outside Diameter	1 1/4 Hole, 1 13-16 Outside Diameter	1 1/2 Hole, 2 3-16 Outside Diameter	1 3/4 Hole, 2 9-16 Outside Diameter	2 Hole, 2 15-16 Outside Diameter	2 1/4 Hole, 3 5-16 Outside Diameter	2 1/2 Hole, 3 11-16 Outside Diameter
2 1/2	\$1 44	\$1 56	\$2 30	\$2 54	\$3 36	\$4 98	\$12 26	\$15 60	\$19 85	\$23 45	\$26 80	\$30 35
3	1 55	1 82	2 56	2 80	3 62	5 24	13 80	17 40	22 05	25 85	29 60	32 55
4	1 70	1 97	2 80	3 44	3 90	6 52	15 60	19 20	23 95	27 70	31 50	35 30
5	3 06	3 60	4 22	5 10	5 60	8 28	18 10	25 30	34 15	41 70	48 85	56 80
6	3 90	4 68	5 44	6 22	7 00	9 34	19 20	31 20	45 35	57 95	70 55	83 20
8	7 20	8 40	9 60	10 80	12 00	16 80	24 00	38 40	58 10	73 90	89 80	105 60
10	9 60	10 80	12 00	14 40	16 80	19 20	31 20	45 60	66 00	81 80	97 70	113 50
12	14 40	15 60	16 80	19 20	21 60	26 40	45 60	69 20	102 10	128 00	154 00	180 00
14	16 80	19 20	21 60	24 00	24 00	28 80	52 80	81 60	121 40	153 10	184 80	216 50
16	19 20	21 60	24 00	28 80	31 20	36 00	62 40	91 20	132 00	163 70	195 40	227 00
18	21 60	24 00	28 80	33 60	36 00	40 80	72 00	102 20	158 60	195 10	231 40	267 60
20	24 00	26 40	31 20	36 00	38 40	45 60	79 20	112 80	176 15	216 00	256 30	296 60
22	27 60	30 00	33 60	38 40	43 20	49 20	86 40	123 60	192 95	237 60	282 20	326 90
24	31 20	33 60	36 00	40 80	48 00	52 80	93 60	134 40	210 20	259 20	308 20	357 10

For glazed tubes add 50 per cent to net price.

For split tubes multiply standard list by four.

For floor tubes multiply standard list by four.

Standard Package Quantity.

All lengths from 7 to 14 inches long inclusive, and up to and including 3/4-inch hole, 500 lots assorted.

All lengths from 16 to 24 inches long inclusive, and up to and including 3/4-inch hole, 200 lots assorted.

Length.	5/8-in. Hole.	3/8-in. Hole.	1/2-in. Hole.	5/8-in. Hole.	3/4-in. Hole.
2 1/2-inch	6,200	4,000	2,700	2 000	1,400
3	5,200	3,400	2,300	1,800	1,200
4	3,600	2,700	1,800	1,450	850
5	2,800	1,800	1,450	1,200	700
6	1,900	1,500	1,200	1,000	600

All lengths and sizes not specified above 100 lots assorted.

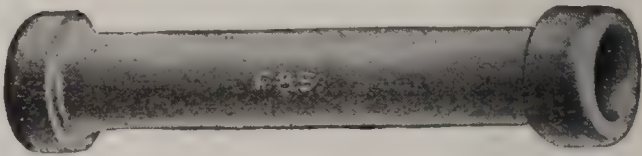
PORCELAIN TUBES.

Split Porcelain Tube.



List No.	Description.	Price Per 100
355	$\frac{5}{16}$ in. hole, 3 in. under head, glazed..	\$5 52
356	$\frac{5}{16}$ in. " 3 in. " " unglazed	6 20

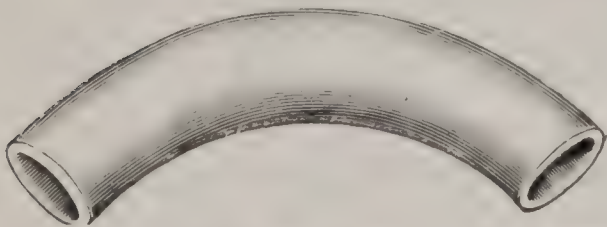
China-Cross-over Tube.



This tube has a head on each end and is designed to be used when wires cross over other wires. The heads tend to hold tube in position.

List No.	Description.	Price Per 100
357	$\frac{3}{8}$ in. hole, 3 in. bet. heads, glazed...	\$4 50
358	$\frac{3}{8}$ in. " 3 in. " " unglazed.	2 50

Awning Insulator.

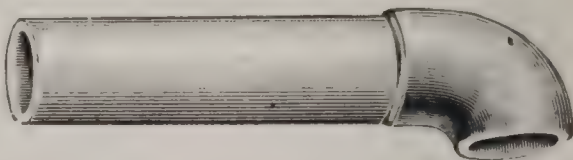


This insulator is used where a wire passes over an awning or cornice, or around the corner of a building to protect the insulation of the wire from abrasion.

Weight, per 1000, 280 lbs.

List No.	Description.	Price Per 100
359	$\frac{1}{4}$ in. hole, $3\frac{1}{2}$ in. long, unglazed...	\$ 4 00
360	$\frac{5}{8}$ in. " 5 " " " "	7 00
363	$\frac{5}{8}$ in. " 18 " " " "	50 00

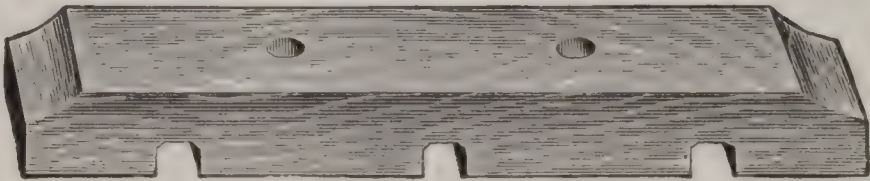
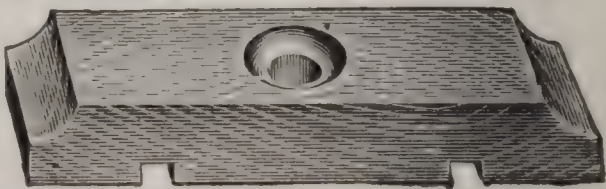
Porcelain Window Tube,
WITH CURVED END.



This form of window tube has a curved end which effectually prevents any water entering through tube, and insures a compliance with the insurance rule requiring a "water loop" in wire.

Hole.	6-in.	8-in.	10-in.	12-in.	14-in.
$\frac{3}{8}$ in.	\$30 22	\$47 64	\$61 71	\$73 83	\$ 85 16
$\frac{5}{8}$ in.	34 30	53 00	71 76	87 17	103 92

WOOD CLEATS.



FURNISHED IN ASH, OAK OR WALNUT.

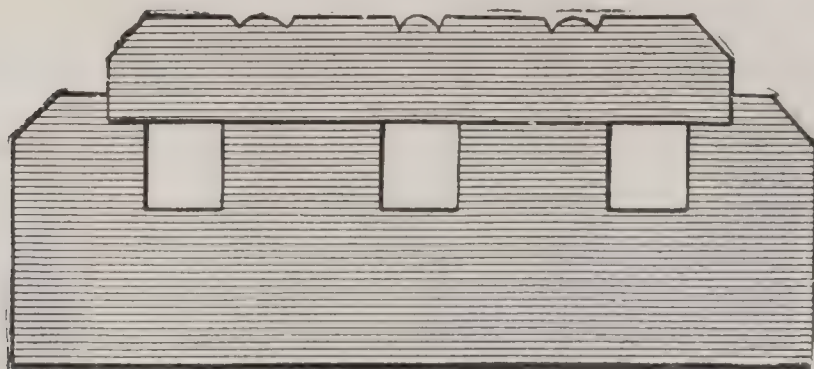
List No.	Description.	Price.
3960	1-Wire (Size of Slot, $\frac{1}{4}$ inch).....	per 1000, \$2 50
3961	1 " " " " $\frac{3}{8}$ "	" 3 00
3962	1 " " " " $\frac{1}{2}$ "	" 3 50
3963	1 " " " " $\frac{3}{4}$ "	" 4 00
3964	1 " " " " 1 "	" 5 50
365	2-Wire (Size of Slot, $\frac{1}{8}$ inch).....	per 1000, \$2 00
366	3 " " " " "	" 2 50
367	4 " " " " "	" 3 00
368	6 " " " " "	" 4 00
369	8 " " " " "	" 5 00
370	10 " " " " "	" 6 00
371	12 " " " " "	" 7 00
372	2-Wire (Size of Slot, $\frac{3}{16}$ inch).....	per 1000, \$2 50
373	3 " " " " "	" 3 00
374	4 " " " " "	" 3 50
375	6 " " " " "	" 4 50
376	8 " " " " "	" 5 50
377	10 " " " " "	" 6 50
378	12 " " " " "	" 7 50

Price for larger Slots on application.

Unless specified, we send either countersunk or plain holes according to stock.

NEW YORK WOOD MOULDING.

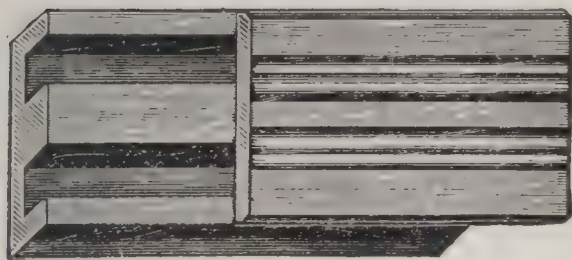
From New York stock only.



Prices per 1000 Feet.

Makers' Nos.		Size of Groove	Number of Groove	Size of Wire B. & S. Gauge				Painted	Plain
S.	J.			Solid	Single	Braid	Str'n'd SingleBraid		
A 2	A2	1/4 inch.	2		14 to 12			\$ 32 00	\$ 22 00
A 4	B1	5-16 "	2		10 to 8		8	40 00	29 00
A 6	C1	7-16 "	2		6 to 4		6 to 5	49 00	36 00
A 8	D1	9-16 "	2		3 to 2		4 to 2	104 00	85 00
A 9	E1	3/4 "	2				1 to 3/0	140 00	111 00
A10	F1	7/8 "	2				4/0 to 250 MCM	182 00	140 00
A11	G1	1 "	2				300 to 400 MCM	220 00	182 00
A12		1 1/4 "	2				500 MCM	250 00	210 00
B 2	A4	1/4 "	3		14 to 12			46 00	34 00
B 4	B3	5-16 "	3		10 to 8		8	54 00	42 00
B 6	C3	7-16 "	3		6 to 4		6 to 5	72 00	56 00
B 8	D3	9-16 "	3		3 to 2		4 to 2	140 00	111 00
B 9	E2	3/4 "	3				1 to 3/0	195 00	154 00
B10	F2	7/8 "	3				4/0 to 250 MCM	250 00	195 00
B11	G2	1 "	3				300 to 400 MCM	305 00	236 00

Prices on hard wood and special moulding on application.



CHICAGO WOOD MOULDINGS.

From Chicago stock only.

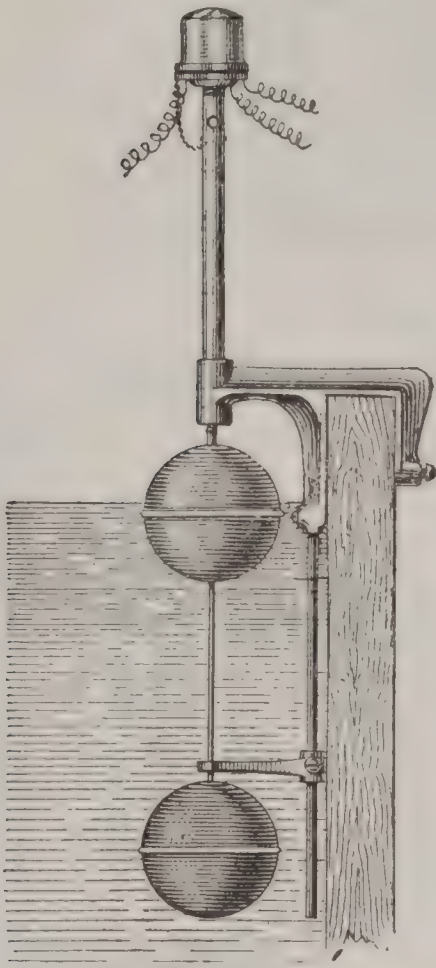
Prices per 1000 Feet, Moulding and Capping.

SIZE OF GROOVE	UNFIN'D SOFT WOOD		FINISHED SOFT WOOD		UNFIN'D HARD WOOD		FINISHED HARD WOOD		UNFIN'D OAK		FINISHED OAK	
	2 Wire	3 Wire	2 Wire	3 Wire	2 Wire	3 Wire	2 Wire	3 Wire	2 Wire	3 Wire	2 Wire	3 Wire
1/4 inch	\$ 9 00	\$15 00	\$12 00	\$19 50	\$12 00	\$18 00	\$15 00	\$22 50	\$16 50	\$27 00	\$22 50	\$36 00
5/16 "	10 50	16 50	13 50	21 00	12 75	18 75	15 75	23 25	17 25	27 75	23 25	37 50
3/8 "	15 00	22 50	21 00	30 00	16 50	24 00	22 50	31 50	33 00	51 00	46 50	67 50
1/2 "	16 50	24 00	22 50	31 50	18 75	25 50	24 75	33 00	37 50	55 50	52 50	75 00
5/8 "	22 50	34 50	30 00	43 50	27 00	39 00	34 50	48 00	46 50	70 50	63 00	93 00
3/4 "	27 00	40 50	36 00	51 00	30 00	49 50	39 00	60 00	60 00	90 00	81 00	117 00
1 "	40 50	60 00	52 50	75 00	48 00	70 50	60 00	85 50	75 00	112 50	100 50	142 50
1 1/4 "	48 00	72 00	61 50	88 50	60 00	90 00	73 50	106 50	90 00	135 00	117 00	168 00
1 1/2 "	66 00	99 00	81 00	118 50	78 00	117 00	93 00	135 00	120 00	180 00	150 00	216 00

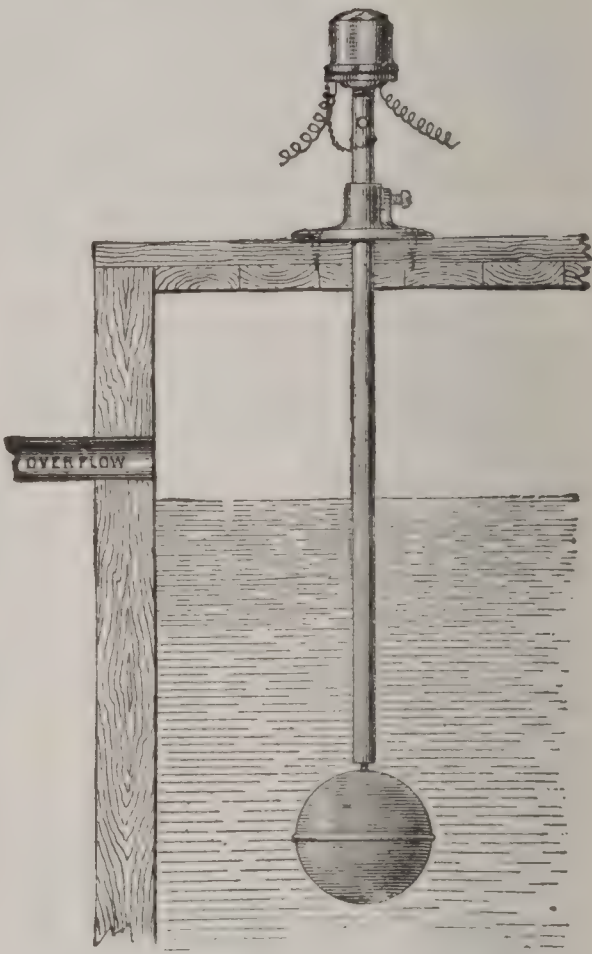
Capping one-third of above prices. If Moulding without Capping is desired, deduct one-third from price.

RELIABLE ELECTRIC TELL-TALE FLOATS.

HIGH AND LOW WATER FLOATS
FOR CLOSED TANKS.



LOW WATER FLOATS.



The regular size of these floats is 12 inches between upper and lower balls. They can be furnished, however, with any distance desired up to 12 feet between balls.
In ordering please state distance between high and low water required.

Where it is only desired to give an alarm when the level of the water has gone down to a certain point, these floats answer the purpose admirably. They are made in any length required. In ordering, state distance from top of tank to where alarm is desired.

Made in six patterns for use on open or closed tanks of every description in Breweries, Oil Refineries, Chemical works, on top of houses, Factories, etc.

The floats are equipped with a circuit-closing attachment, and are very serviceable for giving alarm through an ordinary electric bell when the water in the tank is high or low.

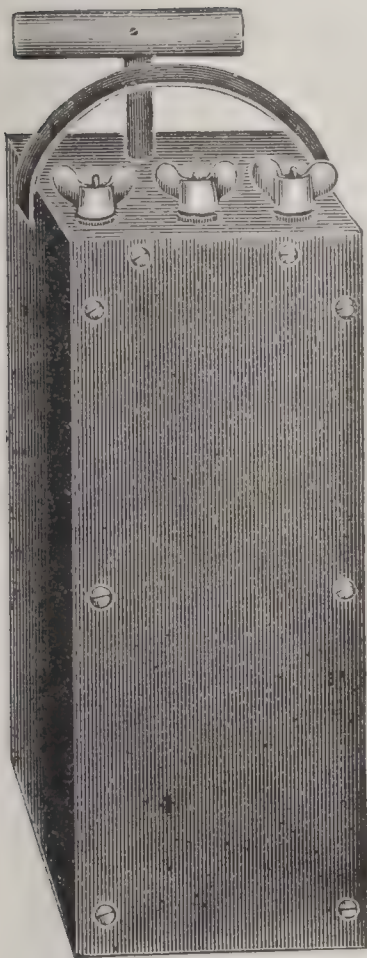
They are easily put up by anyone, and readily attached to any kind of tank. When once in position they require no further attention.

The Double Floats are regularly supplied with the balls twelve inches apart. If they are wanted further apart, add 50 cents to list below for each extra foot in length.

In ordering, give distance between bottom of tank and overflow, also depth of tank inside.

List No.		Price.
5018	High Water alarm, for Open Tank.....	each, \$7 00
5019	Low " " " "	" 7 00
5020	High " " " Closed Tank.....	" 7 00
5021	Low " " " "	" 7 00
5022	Both High and Low alarms, for Open Tank.....	" 12 00
5023	" " " " " Closed "	" 12 00

MAGNETO BLASTING MACHINES.



Blasting by electricity is the surest, safest and best method of igniting blasts. There is no waiting; it is done instantly and safely. A Blasting Machine is a necessity to everyone who uses high explosives.

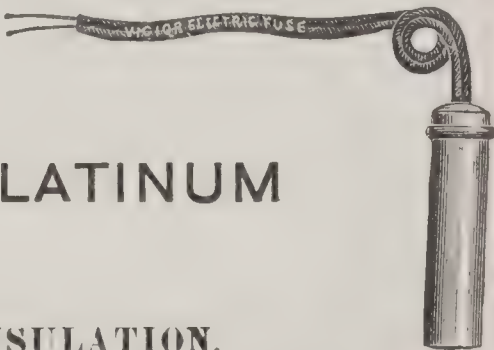
The machines listed below are well made and are operated by a long rack bar which when drawn out to its full extent and pushed firmly but vigorously downward, makes a contact with the bottom of the machine and causes the spark to pass along the leading wire to the connecting wire and thence to the connected fuses.

The No. 9312 is a small machine for firing one to eight holes ; is very light, weighing about 15 lbs., and is operated by a crank. It is especially adapted to prospecting, quarry and stump blasting.

These machines are made in four sizes of varying capacity as listed below.

Full directions with each machine.

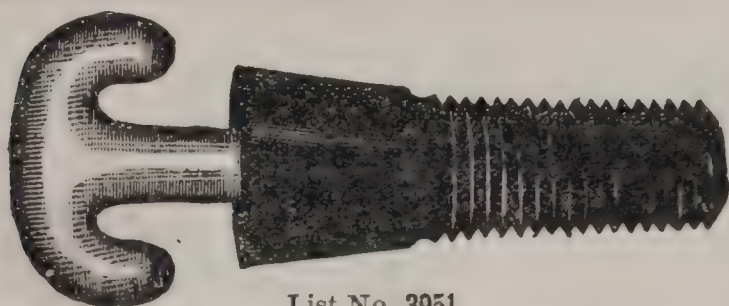
List No.	Price.
9312 Crank Blasting Machine, will fire 1 to 8 holes....each,	\$ 15 00
9313 Push-Bar " " " " 1 to 10 " "	15 00
9314 " " " " " 20 to 35 " "	25 00
9315 " " " " " 35 to 75 " "	50 00
9316 Leading Wire, about 50 feet to the lb.....per lb.,	40
9317 Connect'g " " 250 " " "	40



VICTOR ELECTRIC PLATINUM FUSES.

IMPROVED WATERPROOF INSULATION.

SINGLE STRENGTH ORDINARY QUALITY Equal to Quintuple Force. Per 100			DOUBLE STRENGTH EXTRA QUALITY Equal to Double Quintuple Force. Per 100		
List No.			List No.		
5050	4 feet wires.....	\$3 00	5065	4 feet wires.....	\$3 75
5051	6 "	3 54	5066	6 "	4 29
5052	8 "	4 08	5067	8 "	4 83
5053	10 "	4 62	5068	10 "	5 37
5054	12 "	5 16	5069	12 "	5 91
5055	14 "	5 70	5070	14 "	6 45
5056	16 "	6 24	5071	16 "	6 99
5057	18 "	6 78	5072	18 "	7 53
5058	20 "	7 32	5073	20 "	8 07
5059	22 "	8 32	5074	22 "	9 07
5060	24 "	9 32	5075	24 "	10 07
5061	26 "	10 32	5076	26 "	11 07
5062	28 "	11 32	5077	28 "	12 07
5063	30 "	12 32	5078	30 "	13 07



RUBBER HOOK INSULATORS.

List No.	Price.
3951 Each.....	\$0 18
3951 Per 100.....	17 00

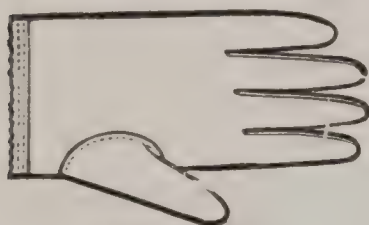
List No. 3951.

WOOD BLOCKS FOR RUBBER HOOK INSULATORS.

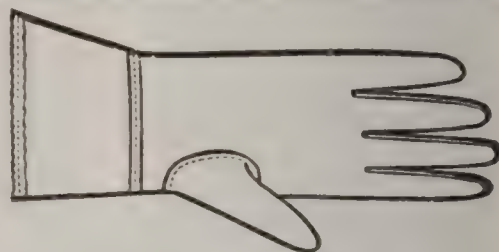
List No.	Price.	List No.	Price.	List No.	Price.
3953 One Hole Blocks, ea.	\$0 05	3954 Two Hole Blocks, ea.	\$0 06	3955 Three Hole Blks. ea.	\$0 10

LINEMEN'S RUBBER GLOVES.—For Protection from Shock.

These gloves are designed to prevent the frequent and often fatal accidents occurring to linemen from shock while handling electric light wires, or other wires in contact with the same, also the dangers of line work from lightning in stormy weather. The gloves are also useful in handling the strong acids of batteries—being impervious to the same.



List No.	Price per Pair.
4787 Heavy Short Gloves.....	\$2 25
4788 Heavy Gloves with Gauntlet.....	2 75



List No. 4787.

List No. 4788.

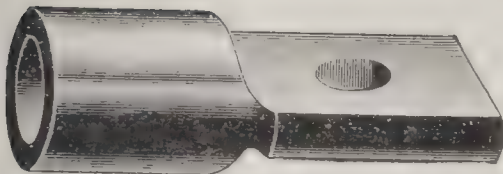
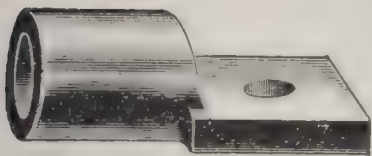
PATENT IRON WOOD SCREWS.

FLAT ROUND, PIANO, FILLISTER AND OVAL HEAD.

PRICE PER GROSS.

[illegible][illegible]

CAST COPPER PLUGS OR TERMINALS.



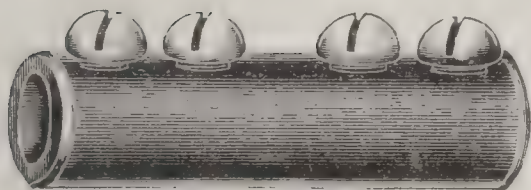
List No.	Cap. in Amps.	Size of Wire or Cable.	Price Plain.	List No.	Price Polished.
9025	25	No. 10	\$0 12	9040	\$0 18
9026	50	No. 6	16	9041	24
9027	75	No. 4	20	9042	30
9028	100	No. 3	28	9043	42
9029	150	No. 0	32	9044	48
9030	200	No. 000	40	9045	60
9031	225	No. 0000	44	9046	66
9032	250	No. 300000	48	9047	72
9033	300	No. 350000	56	9948	84
9034	400	No. 400000	75	9049	1 06
9035	500	No. 500000	90	8050	1 25
9036	600	No. 600000	1 25	9051	1 65
9037	800	No. 800000	1 80	9052	2 30
9038	1000	No. 1000000	2 00	9053	2 60



List No. 4872.

SINGLE SCREW.

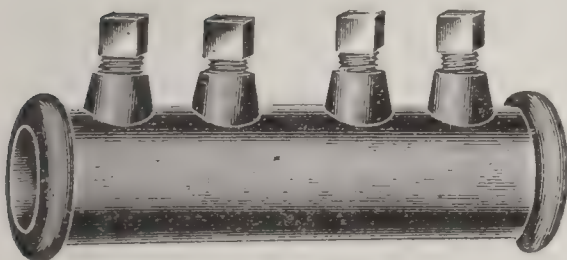
List No.	Outside size,	Price Per 100.
4872	$\frac{5}{16}$ in. for Nos. 12 and 14 wire..	\$10 00
4873	" " $\frac{5}{16}$ in. " " 10 " 8 " ..	11 00
4874	" " $\frac{3}{8}$ in. " " 6 " 7 " ..	12 00
4875	" " $\frac{7}{16}$ in. " " 4 " 5 " ..	14 00
4876	" " $\frac{1}{2}$ in. " " 2 " 3 " ..	18 00
4877	" " $\frac{9}{16}$ in. " " 0 " 1 " ..	20 00



List No. 4878.

DOUBLE SCREW.

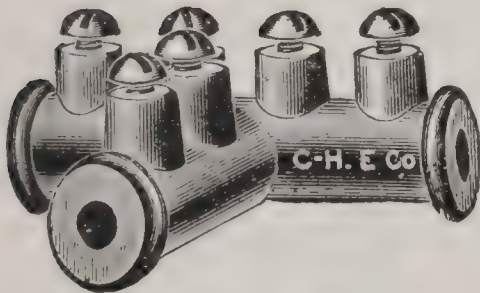
List No.	Outside size,	Price Per 100.
4878	$\frac{7}{16}$ in. for Nos. 4 and 5 wire....	\$24 00
4879	" " $\frac{1}{2}$ in. " " 2 " 3 " ..	30 00
4880	" " $\frac{9}{16}$ in. " " 0 " 1 " ..	37 00
4881	" " $\frac{5}{8}$ in. " " 00 wire	44 00



List No. 4886.

DOUBLE SCREW. EXTRA HEAVY CAST.

List No.	For No.	Price Per 100.
4886	0 and smaller	\$37 00
4887	00 "	45 00
4882	000 "	52 00
4883	0000 "	61 00
4884	With 1 inch Hole.....	71 00
4885	With $1\frac{1}{8}$ inch Hole.....	84 00

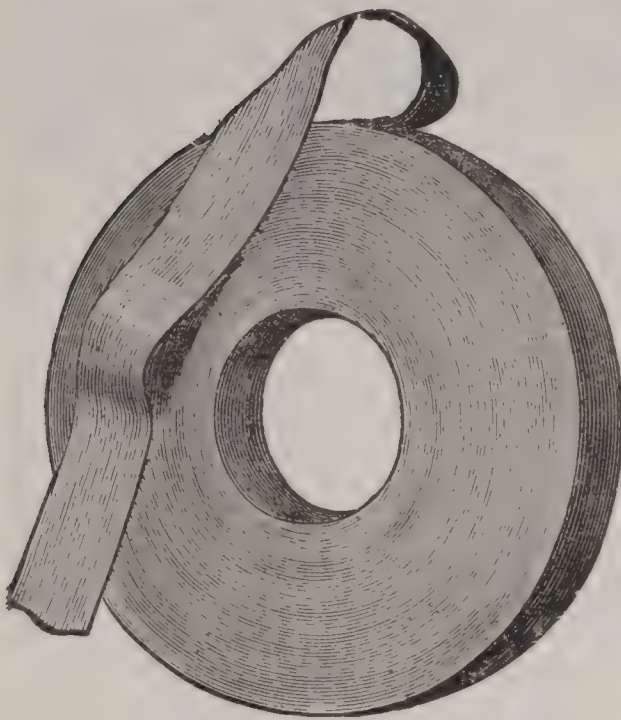


List No. 4888.

THREE-WAY. CAST.

List No.		Price Each.
4888	Three-Way, No. 0 wire	\$0 60
4868	Three-Way, No. 00 wire	80

SPLICING TAPES AND COMPOUNDS.



CLOTH BASE RUBBER INSULATING TAPES.

List No.				Price
4740	Manhattan,	White, 1/4 lb.	Rolls, per Roll	\$0 20
4741	Manhattan,	Black, 1/4	"	20
4742	Manhattan,	White, 1/2	per lb.	70
4743	Manhattan,	Black, 1/2	"	70
4744	Grimshaw,	White, 1/2	"	1 30
4745	Grimshaw,	Black, 1/2	"	1 40
4746	Manson,	Black, 1/2	"	1 10
4747	Okonite,	Black, 1/2	"	1 50
4748	Kerite,	Black, 1	"	95
4749	Competition,	Black, 1/2	"	80
4754	Competition,	White, 1/2	"	80
4750	P. & B.,	Black, 1/2	"	1 00
4751	Acme,	Black, 1/2	"	1 00

VOLTA TAPE.

This is a special high grade Splicing Tape, guaranteed to give perfect satisfaction under the most trying conditions. Put up in half pound rolls. Each roll encased in a neat tin box.

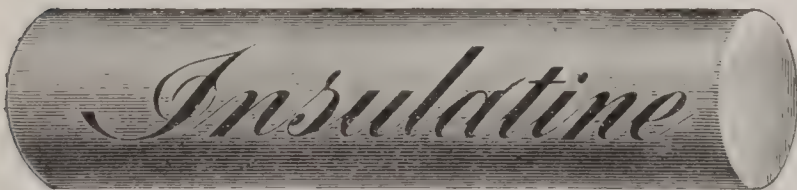
List No.		Price.
4755	Volta Tape, Black, 1/2 lb. Roll, per lb....	\$1 00
4756	Volta Tape, White, 1/2 lb. Roll, per lb....	1 00

RUBBER GUM TAPE.

List No.		Price.
4752	Manhattan A, 1/2 pound Rolls, per pound	\$1 50
4753	Manhattan B, 1/2 pound Rolls, per pound	1 20
Any of the above Tapes furnished in 1/2, 1, 1 1/2, 2 and 3 inches wide, to order.		

CHATTERTON COMPOUND.

4760	Chatterton's American, in Sticks, per pound	1 50
4761	Chatterton's Imported, in Sticks, per pound	2 00



THE ADHESIVE SEALING AND BINDING CEMENT.

This is a new Sealing Compound, suitable for all purposes where a high class electrical cement is required. It is recommended for insulating, jointing, filling and cementing all materials, including switchboards, batteries, cut-outs, fixtures, fuse blocks, etc. It prevents electrolysis. Will stand over 2000 Volts per square inch. It can be melted in ladle, or a Stick can be handled like lead solder. This material is made in several different grades to suit requirements. Furnished in one pound Sticks, eight inches long, and one and one-half inches in diameter; or in bulk if desired in large quantities.

List No.		Price.
13600	Insulatine, High Temperature Sealing Cement, for Panels, Switchboards, Porcelain, etc., per pound	\$0 80
13601	Insulatine, High Melting, Flexible at 60 to 80 degrees, Acid and Water proof, Used for Cable Terminals, Submarine Work, Potheads and Subway Connections, per pound	0 80

MANHATTAN INSULATING COMPOUND.
Perfect Insulator. Quick Drying Compound.

List No.		Price.	Price.	Price.
9101	Cans, each	Pint Can, \$0 20	Quart Can, \$0 35	1 Gallon Can, \$1 25

P. & B. COMPOUND.

For all general uses the No. 2 Compound is recommended. No. 1 Compound is used when an almost immediate drier and extreme penetration is desired.

List No.		Pint Cans.	Quart Cans.	1 Gallon Cans.	5 Gallon Cans.	1/2 Barrels.	Barrels.
4762	1st Grade, price per gal....	\$2 25	\$2 25	\$1 75	\$1 60	\$1 55	\$1 50
4763	2d Grade, price per gal....	2 00	2 00	1 50	1 40	1 35	1 25

TAPES AND COMPOUNDS.

P. & B. ARMATURE VARNISH.

P. & B. Armature and Field Coil Varnish is the highest grade Varnish in the market for armature and dynamo work. It gives a hard and glossy, but elastic finish.

List No.		Price.	List No.		Price.
9105	In Barrels of 50 gals., per gal....	\$2 90	9109	In 2½ Gal. Cans.....	\$3 35
9106	In ½ Barrels, 25 gals., per gal....	3 00	9110	In 1 Gal. Cans.....	3 50
9107	In 10 Gal. Cans.....	3 25	9111	In ½ Gal. Cans.....	3 75
9108	In 5 Gal. Cans.....	3 25	9112	In Quart Cans.....	4 00

COMMUTATOR COMPOUNDS.

List No.		Price.	List No.		Price.
4764	Gales, per stick.....	\$0 50	9117	Trotters, per stick.....	\$0 50
9115	Crown, per stick, small.....	35	9114	Red Cross, per stick	50
9116	Crown, per stick, large.....	50			

No. 1 STANDARD MICANITE PLATES.

For Rings and other Moulded Insulation.

In sheets, 18 x 36 inches.

List No.		Price.
9118	.025 thick or over, per lb.....	\$1 80
9119	.024 thick or under, per lb.....	2 20
	Any other rectangular size.	
9120	.025 thick or over, per lb.....	2 20
9121	.024 thick or under, per lb	2 50

No. 2 SPECIAL MICANITE PLATES.

For Commutator Segments.

In sheets, 18 x 36 inches.

List No.		Price.
9122	.025 thick or over, per lb.....	\$2 00
9123	.024 thick or under, per lb	2 40
	Any other rectangular size.	
9124	.025 thick or over, per lb.....	2 40
9125	.024 thick or under, per lb	2 75

FLEXIBLE MICANITE PLATES.

For Armature Slots.

In sheets, 36 x 36 inches.

List No.		Price.
9173	.010 thick or over, per lb.....	\$1 40
9174	.009 thick or under, per lb.....	1 70

MICANITE CLOTH.

Rolls 32 inches x 36 feet, and sheets 32 x 32 inches. Standard thickness .011, two layers of Mica.

List No.		Price.
9175	Any thickness, per lb.....	\$1 50

MICANITE PAPER.

Rolls 32 inches x 16 feet, and sheets 32 x 32 inches. Stock sizes, .005 and .011 thick.

List No.		Price.
9176	Any thickness, per lb.....	\$1 75

EMPIRE CLOTHS.

Furnished in rolls containing 25, 50 and 100 square yards, or any length desired.

LINEN FINISHED MUSLIN.

Thickness .005, average puncture Voltage 5800.

List No.		Price.
9178	Per square yard.....	\$0 38

BEST LINEN FINISHED MUSLIN.

Thickness .007, average puncture Voltage 7800.

List No.		Price.
9179	Per square yard.....	\$0 45

Thickness .012, average puncture Voltage 12430.

9180	Per square yard.....	\$0 50
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Thickness .015, average puncture Voltage 15980.

9181	Per square yard.....	\$0 60
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EMPIRE PAPERS.

Sheets, 36 x 36 inches or 36 x 72 inches.

List No.		Price.
9182	Manila Rope Paper, per sq. yd..	\$0 20
9183	Bond Paper " "	0 34
9162	Gray Rope Paper " "	0 40

"M. I. C." COMPOUND.

No. 1 Full Rubber, Baking, for armature coils, field magnet coils, wires and cables, transformers, for covering cloth, paper, asbestos, hard fiber, and wherever the highest insulation and protection from moisture is required. Air dries in six hours. Bakes hard, but elastic at 300° F. in 8 hours.

No. 2 Half Rubber, Baking, for all outdoor work; generators, motors, arc lamps, overhead line construction, boilers, smoke stacks, etc. Air dries in six hours. Bakes hard, but elastic at 300° F. in 8 hours.

No. 3 Full Rubber, Air Drying; Dust dry in one hour.

No. 4 Half Rubber, Air Drying; Dust dry in half an hour.

Price List F. O. B. Factory.

List No.	No.	Half Bbls of about 25 Gals. Per Gal.	In 5 or 10 Gal. Cans. Per Gal.	In 1 Gal. Cans. PerGal.	In 1 Quart Cans PerGal.
9151	1	\$1 40	\$1 50	\$1 75	\$2 00
9152	2	1 20	1 30	1 50	1 75
9153	3	95	1 00	1 25	1 50
9154	4	70	75	1 00	1 25

Full bbl. lots special price.

CUT SHEET INSULATING MICA.

Selected specially for Electrical use.

Size.	Price per lb.	Size.	Price per lb.	Size.	Price per lb.	Size.	Price per lb.
1 x 4	\$1 30	2 x 6	\$3 25	2 3/4 x 4 1/2	\$4 00	3 1/2 x 10	\$10 75
1 x 4 1/2	1 60	2 x 6 1/2	3 75	2 3/4 x 4 3/4	4 50	4 x 4	7 00
1 x 5	2 00	2 x 7	4 75	2 3/4 x 5	5 25	4 x 4 1/2	7 25
1 x 5 1/2	2 25	2 x 7 1/2	5 00	2 3/4 x 5 1/4	5 50	4 x 4 3/4	7 50
1 x 6	2 65	2 x 8	5 40	2 3/4 x 5 1/2	5 75	4 x 5	7 75
1 1/4 x 4	1 35	2 1/4 x 2 1/4	1 30	2 3/4 x 6	6 25	4 x 5 1/2	8 50
1 1/4 x 4 1/2	1 65	2 1/4 x 2 1/2	1 30	3 x 3	2 75	4 x 6	9 00
1 1/4 x 5	2 00	2 1/4 x 2 3/4	1 35	3 x 3 1/4	3 00	4 x 6 1/2	9 25
1 1/4 x 5 1/2	2 25	2 1/4 x 3	1 45	3 x 3 1/2	3 50	4 x 7	9 50
1 1/4 x 6	2 65	2 1/4 x 3 1/4	1 55	3 x 3 3/4	4 00	4 x 8	9 75
1 1/2 x 2	1 10	2 1/4 x 3 1/2	1 60	3 x 4	5 00	4 x 9	10 00
1 1/2 x 2 1/4	1 10	2 1/4 x 3 3/4	1 75	3 x 4 1/4	5 25	4 x 10	11 00
1 1/2 x 2 1/2	1 10	2 1/4 x 4	1 95	3 x 4 1/2	6 00	4 x 11	12 00
1 1/2 x 2 3/4	1 20	2 1/4 x 4 1/4	2 10	3 x 4 3/4	6 50	4 x 12	13 00
1 1/2 x 3	1 25	2 1/4 x 4 1/2	2 30	3 x 5	7 00	4 1/2 x 4 1/2	7 50
1 1/2 x 3 1/4	1 25	2 1/4 x 4 3/4	2 50	3 x 5 1/2	7 50	4 1/2 x 5	8 25
1 1/2 x 3 1/2	1 30	2 1/4 x 5	3 00	3 x 6	8 00	4 1/2 x 5 1/2	8 75
1 1/2 x 3 3/4	1 30	2 1/4 x 5 1/4	3 10	3 x 6 1/2	8 25	4 1/2 x 6	9 25
1 1/2 x 4	1 40	2 1/4 x 5 1/2	3 25	3 x 7	8 50	4 1/2 x 6 1/2	9 50
1 1/2 x 4 1/4	1 40	2 1/4 x 6	3 65	3 x 8	8 75	4 1/2 x 7	9 75
1 1/2 x 4 1/2	1 60	2 1/4 x 6 1/4	3 90	3 x 9	9 00	4 1/2 x 8	10 00
1 1/2 x 5	2 00	2 1/4 x 6 1/2	4 15	3 x 10	10 50	4 1/2 x 9	10 25
1 1/2 x 5 1/2	2 30	2 1/4 x 7	5 00	3 1/4 x 3 1/4	3 50	4 1/2 x 10	11 25
1 1/2 x 6	2 90	2 1/2 x 2 1/2	1 40	3 1/4 x 3 1/2	4 00	5 x 5	8 50
1 3/4 x 3	1 20	2 1/2 x 2 3/4	1 45	3 1/4 x 3 3/4	4 50	5 x 5 1/2	9 00
1 3/4 x 3 1/4	1 25	2 1/2 x 3	1 60	3 1/4 x 4	5 25	5 x 6	9 50
1 3/4 x 3 1/2	1 35	2 1/2 x 3 1/4	1 70	3 1/4 x 4 1/4	5 50	5 x 6 1/2	9 75
1 3/4 x 3 3/4	1 40	2 1/2 x 3 1/2	1 85	3 1/4 x 4 1/2	6 00	5 x 7	10 00
1 3/4 x 4	1 50	2 1/2 x 3 3/4	1 90	3 1/4 x 4 3/4	6 50	5 x 8	10 25
1 3/4 x 4 1/4	1 60	2 1/2 x 4	2 10	3 1/4 x 5	7 25	5 x 9	10 50
1 3/4 x 4 1/2	1 70	2 1/2 x 4 1/4	2 30	3 1/4 x 5 1/4	7 50	5 x 10	11 00
1 3/4 x 4 3/4	1 80	2 1/2 x 4 1/2	2 75	3 1/4 x 5 1/2	7 75	5 1/2 x 6	9 75
1 3/4 x 5	2 25	2 1/2 x 4 3/4	3 25	3 1/4 x 6	8 50	5 1/2 x 7	10 25
1 3/4 x 5 1/2	2 50	2 1/2 x 5	3 75	3 1/4 x 7	8 75	5 1/2 x 8	10 50
1 1/2 x 6	3 00	2 1/2 x 5 1/4	3 85	3 1/4 x 8	9 00	6 x 6	10 00
2 x 2	1 20	2 1/2 x 5 1/2	4 00	3 1/2 x 3 1/2	4 50	6 x 6 1/2	10 25
2 x 2 1/4	1 20	2 1/2 x 6	4 50	3 1/2 x 3 3/4	5 00	6 x 7	10 50
2 x 2 1/2	1 20	2 1/2 x 6 1/2	4 75	3 1/2 x 4	6 00	6 x 8	10 75
2 x 2 3/4	1 25	2 1/2 x 7	5 25	3 1/2 x 4 1/4	6 25	6 x 9	11 00
2 x 3	1 30	2 1/2 x 7 1/2	5 50	3 1/2 x 4 1/2	6 50	6 x 10	11 50
2 x 3 1/4	1 40	2 1/2 x 8	6 00	3 1/2 x 4 3/4	7 00	7 x 7	10 75
2 x 3 1/2	1 45	2 3/4 x 2 1/4	1 50	3 1/2 x 5	7 50	7 x 7 1/2	10 75
2 x 3 3/4	1 50	2 3/4 x 3	2 00	3 1/2 x 5 1/2	8 25	7 x 8	11 00
2 x 4	1 60	2 3/4 x 3 1/4	2 25	3 1/2 x 6	8 75	7 x 9	11 25
2 x 4 1/4	1 65	2 3/4 x 3 1/2	2 50	3 1/2 x 6 1/2	8 75	7 x 10	12 00
2 x 4 1/2	1 65	2 3/4 x 3 3/4	2 75	3 1/2 x 7	9 00	8 x 8	12 00
2 x 4 3/4	1 90	2 3/4 x 4	3 25	3 1/2 x 8	9 25	8 x 9	12 50
2 x 5	2 30	2 3/4 x 4 1/4	3 50	3 1/2 x 9	9 50	8 x 10	13 00
2 x 5 1/2	2 70						

Will cut any special size required. the price of which will be the same as the next largest listed.

UNCUT SHEET MICA.

List No.							Price.
9157	Grade No. A	1	will cut assorted sizes	4 to 8 in. wide,	8 to 10 in. long.	per lb.	\$2 50
9158	"	1	"	3 to 6	6 to 9	"	1 75
9159	"	2	"	2 to 4	5 to 8	"	1 00
9160	"	3	"	2 to 3 1/2	4 to 6	"	55
9161	"	4	"	1 to 3 1/2	2 1/2 to 4	"	40

HARD RUBBER SHEET.

List No.	Thickness	Appx. Weight of Full Sheet	Price Per lb.
9190	$\frac{1}{32}$ inch	11 $\frac{1}{8}$ lb.	\$2 10
9191	$\frac{1}{16}$ "	23 $\frac{1}{4}$ "	2 00
9192	$\frac{3}{32}$ "	37 $\frac{3}{8}$ "	2 00
9193	$\frac{1}{10}$ "	43 $\frac{3}{8}$ "	2 00
9194	$\frac{1}{8}$ "	51 $\frac{1}{2}$ "	2 00
9195	$\frac{3}{16}$ "	6 "	2 00
9196	$\frac{1}{4}$ "	71 $\frac{1}{2}$ "	2 00
9197	$\frac{1}{4}$ "	101 $\frac{1}{2}$ "	2 00
9198	$\frac{1}{4}$ "	131 $\frac{1}{4}$ "	2 00
9199	$\frac{3}{8}$ "	161 $\frac{1}{2}$ "	2 00
9200	$\frac{1}{2}$ "	183 $\frac{3}{4}$ "	2 00
9201	$\frac{1}{2}$ "	22 "	2 00
9202	$\frac{5}{8}$ "	24 "	2 00
9203	$\frac{3}{4}$ "	27 "	2 00
9204	$\frac{3}{4}$ "	32 "	2 00
9205	$\frac{7}{8}$ "	35 "	2 00
9206	1 "	40 "	2 00
9207	1 $\frac{1}{4}$ "	50 "	2 00

HARD RUBBER RODS.

List No.	Diameter	Appx. Weight Per 100 Feet	Price Per lb.
9208	$\frac{1}{8}$ inch	$\frac{3}{4}$ lb.	\$1 80
9209	$\frac{3}{16}$ "	1 $\frac{1}{2}$ "	1 80
9210	$\frac{1}{4}$ "	23 $\frac{1}{4}$ "	1 50
9211	$\frac{5}{16}$ "	4 "	1 50
9212	$\frac{3}{8}$ "	61 $\frac{1}{2}$ "	1 50
9213	$\frac{7}{16}$ "	8 "	1 50
9214	$\frac{1}{2}$ "	101 $\frac{1}{4}$ "	1 40
9215	$\frac{9}{16}$ "	123 $\frac{1}{4}$ "	1 40
9216	$\frac{5}{8}$ "	16 "	1 35
9217	$\frac{11}{16}$ "	191 $\frac{1}{4}$ "	1 35
9218	$\frac{3}{4}$ "	223 $\frac{1}{4}$ "	1 35
9219	$\frac{13}{16}$ "	273 $\frac{1}{4}$ "	1 35
9220	$\frac{7}{8}$ "	291 $\frac{1}{4}$ "	1 35
9221	$\frac{15}{16}$ "	361 $\frac{1}{2}$ "	1 35
9222	1 "	42 "	1 25
9224	1 $\frac{1}{4}$ "	651 $\frac{1}{2}$ "	1 25
9225	1 $\frac{1}{2}$ "	92 $\frac{1}{2}$ "	1 25
9226	1 $\frac{3}{4}$ "	128 "	1 25

HARD RUBBER TUBING.

List No.	Outside Diam.	Inside Diam.	Appx. No. Feet per lb.	Price Per lb.
9227	$\frac{3}{8}$ in.	$\frac{1}{8}$ in.	20	\$1 20
9228	$\frac{1}{2}$ "	$\frac{1}{4}$ "	14	1 20
9229	$\frac{1}{2}$ "	$\frac{5}{16}$ "	16	1 20
9230	$\frac{5}{8}$ "	$\frac{3}{8}$ "	10	1 20
9231	$\frac{3}{4}$ "	$\frac{1}{2}$ "	8	1 20
9232	$\frac{7}{8}$ "	$\frac{5}{8}$ "	8	1 20
9233	1 "	$\frac{3}{4}$ "	6	1 20
9234	1 $\frac{1}{8}$ "	$\frac{7}{8}$ "	6	1 20

SOFT RUBBER TUBING.

List No.	Inside Diam.	Covers Wire	Appx. No. Feet per lb.	Price Per lb.
9235	$\frac{1}{8}$ in.	No. 20	100	\$1 35
9236	$\frac{3}{16}$ "	" 14	50	85
9237	$\frac{1}{4}$ "	" 10	20	85
9238	$\frac{5}{16}$ "	" 6	15	85
9239	$\frac{3}{8}$ "	" 4	12	85
9240	$\frac{1}{2}$ "	" 0	9	85

FLEXITE COMPOSITION TUBING.

List No.	FOR PANEL AND SWITCHBOARD INSULATION.	Price.
9243	$\frac{1}{4}$ inch inside diameter, approx. 6 lbs. per 100 feet.....	per lb., \$0 70
9244	$\frac{3}{8}$ " " " 7 " "	" 70
9245	$\frac{1}{2}$ " " " 10 " "	" 70

HARD SHEET FIBRE.—RED.

When no color is specified in orders we send Red. Sheets measure about 42 x 66 inches.

List No.	Thick- ness.	Price Per lb.	List No.	Thick- ness.	Price Per lb.
9246	1 $\frac{1}{4}$ inch....	\$0 65	9254	$\frac{3}{8}$ inch....	\$0 50
9247	1 "	65	9255	$\frac{1}{2}$ "	50
9248	$\frac{3}{8}$ "	65	9256	$\frac{1}{4}$ "	50
9249	$\frac{3}{4}$ "	60	9257	$\frac{1}{8}$ "	50
9250	$\frac{5}{8}$ "	60	9258	$\frac{1}{8}$ "	50
9251	$\frac{9}{16}$ "	60	9259	$\frac{1}{16}$ "	60
9252	$\frac{1}{2}$ "	50	9260	$\frac{3}{32}$ "	60
9253	$\frac{1}{8}$ "	50	9261	$\frac{64}{64}$ "	60

Black Fibre 5 cents per lb. extra.

HARD FIBRE RODS.—RED.

List No.	Diam.	Price Per ft.	List No.	Diam.	Price Per ft.
9262	$\frac{3}{32}$ inch....	\$0 15	9271	$\frac{5}{8}$ inch....	\$0 35
9263	$\frac{1}{8}$ "	15	9272	$\frac{11}{16}$ "	42
9264	$\frac{1}{4}$ "	15	9273	$\frac{3}{4}$ "	50
9265	$\frac{1}{4}$ "	15	9274	$\frac{7}{8}$ "	60
9266	$\frac{5}{16}$ "	16	9275	1 "	75
9267	$\frac{3}{8}$ "	18	9276	1 $\frac{1}{8}$ "	1 00
9268	$\frac{1}{2}$ "	22	9277	1 $\frac{1}{4}$ "	1 25
9269	$\frac{1}{2}$ "	26	9278	1 $\frac{3}{8}$ "	2 00
9270	$\frac{9}{16}$ "	30	9279	1 $\frac{1}{2}$ "	3 00

Black Rods 10 per cent. extra.

HARD FIBRE TUBING.—RED.

PRICE PER FOOT.

THICKNESS OF WALL.							THICKNESS OF WALL.							
INSIDE DIAMETER.	$\frac{1}{16}$	$\frac{3}{32}$	$\frac{1}{8}$	$\frac{5}{32}$	$\frac{3}{16}$	$\frac{1}{4}$	INSIDE DIAMETER.	$\frac{1}{16}$	$\frac{3}{32}$	$\frac{1}{8}$	$\frac{5}{32}$	$\frac{3}{16}$	$\frac{1}{4}$	
	$\frac{1}{8}$	\$0 20	\$0 30	\$0 40	....	....		$\frac{7}{8}$	\$0 18	\$0 27	\$0 36	\$0 45	\$0 54	\$0 72
	$\frac{3}{16}$	20	30	40	....	....		$\frac{15}{16}$	19	29	38	47	57	76
	$\frac{1}{4}$	10	14	18	22	26		1	20	30	40	50	60	80
	$\frac{5}{16}$	10	15	19	24	28		$1\frac{1}{8}$	22	33	44	55	66	88
	$\frac{3}{8}$	11	16	21	26	31		$1\frac{1}{4}$	24	36	48	60	72	96
	$\frac{7}{16}$	11	17	22	28	33		$1\frac{3}{8}$	26	39	52	65	78	1 04
	$\frac{1}{2}$	12	18	24	30	36		$1\frac{1}{2}$	28	42	56	70	84	1 12
	$\frac{9}{16}$	13	20	26	32	39		$1\frac{5}{8}$	30	45	60	75	90	1 20
	$\frac{5}{8}$	14	21	28	35	42		$1\frac{3}{4}$	32	48	64	80	96	1 28
	$\frac{11}{16}$	15	23	30	37	45		$1\frac{7}{8}$	34	51	68	85	1 02	1 36
	$\frac{3}{4}$	16	24	32	40	48		2	35	54	72	90	1 08	1 44
	$\frac{7}{8}$	17	26	34	42	51								
	$\frac{15}{16}$													

For Black Color add 10 per cent. extra.

UNIVERSAL DUSTER.



Indispensable for cleaning Dynamos, Motors, Telephone instruments, and Fine Mechanical Work, Switchboards, and places which cannot be reached with a brush or cloth. These Bellows have no metal mountings, the nozzle as well as body is made of wood precluding short circuits or injury of any kind. They are very light and almost indestructible. Produce with one stroke a current of compressed air which removes all dust particles from the most inaccessible places.

List No.	Inside Diameter	Length	Weight in oz.	Price Each
9285	2 ³ / ₈ in.	20 in.	10 ¹ / ₂	\$1 50
9286	2 ³ / ₄ in.	22 ³ / ₈ in.	13 ¹ / ₂	2 00
9287	3 in.	24 ¹ / ₄ in.	16 ¹ / ₂	3 25
9288	3 ¹ / ₈ in.	25 ¹ / ₈ in.	23.....	5 00
9289	4 in.	32 ¹ / ₄ in.	32 ¹ / ₂	7 00

SHEET ASBESTOS.

Fireproof lining for cut-out boxes, etc.
Supplied in sheets one yard wide, any desired length.

List No.	Price.	List No.	Price.
9290 1 ³ / ₈ inch thick.....per lb.,	\$0 12	9293 1 ³ / ₈ inch thick.....per lb.,	\$0 12
9291 1 ¹ / ₈ " " " " " " " " " " " "	12	9294 1 ¹ / ₄ " " " " " " " " " " " "	12
9292 1 ¹ / ₈ " " " " " " " " " " " "	12		

CROCUS CLOTH.

List No.	Price.
9295 Per sheet.....	\$0 05
" quire (24 sheets).....	1 10

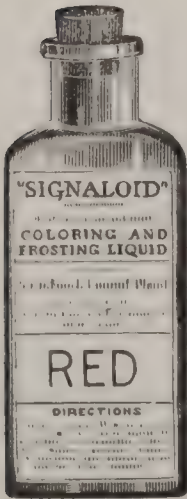
EMERY CLOTH.

List No.	Price.
9296 Grade No. 0, per quire (24 sheets).....	\$1 40
9297 " " 1, " " " " " " " " " " " "	1 50
9298 " " 2, " " " " " " " " " " " "	2 00

COTTON WASTE.

List No.	Price.
9299 Best quality white waste.....per lb.,	\$0 20

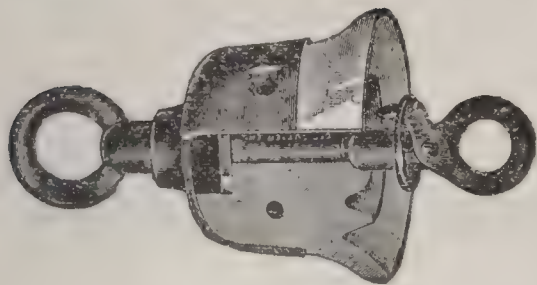
“SIGNALOID” LAMP COLORING SOLUTION.



“Signaloid” is a solution chemically prepared for the coloring of incandescent lamps and globes. The process is simple and instantaneous. By merely dipping the lamp in the solution and withdrawing it immediately, produces a brilliant and durable transparency, giving the lamp the appearance of being made of colored glass. It will not crack, peel or chip off and the color will outlast any lamp. The following colors are carried in stock: Moonlight Blue, Ruby, Blue, White, Golden Yellow, Green, Purple, Violet, Amber, Frostine. Special colors can be made to order.

List No.	Color	6 oz. Bottle	8 oz. Bottle	Pint Bottle	Quart Bottle	1/2 gal. Can	1 gal. Can
9300	Ruby						
9301	Red						
9302	Blue						
9303	Moonlight Blue						
9304	White						
9305	Golden Yellow						
9306	Green	\$0 75	\$1 00	\$2 00	\$3 00	\$5 00	\$8 00
9307	Purple						
9308	Violet						
9309	Amber						
9310	Frostine						

CUTTER'S ELECTRIC LIGHT SPECIALTIES.

**High Voltage Insulator.**

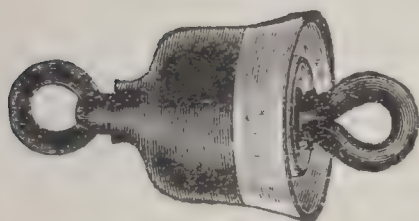
A double petticoat porcelain bell, well suited for use on arc circuits exposed to weather, steam, smoke or fumes.

List No.	Price.
4065	Insulator complete.....\$1.00

**High Voltage Rope Clamp.**

Similar to the above with a clamp for wire rope fastened to the cap.

List No.	Price.
9331	Insulator complete.....\$1.20

**High Voltage Rope Insulator.**

For looping into wire hoisting ropes.

List No.	Price.
9325	Insulator complete.....\$0.90

**High Voltage Rope Clamp Insulator.**

Same as above with clamp for wire rope.

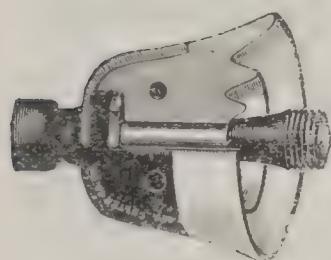
List No.	Price.
9326	Insulator complete.....\$1.20

**Arc Insulator.**

For Low Voltage Circuits.

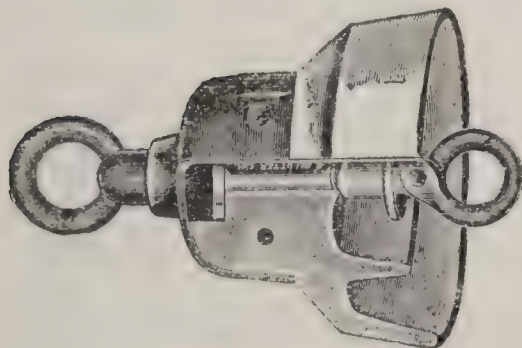
Hard rubber bell with double petticoat

List No.	Price.
9327	Insulator complete.....\$0.80

**Hood Insulator.**

Easily inserted between the goose-neck and the cross-arm on bracket street hoods to adapt them to high voltages.

List No.	Price.
9328	Insulator complete, 1/2 in. pipe.....\$1.00
9329	" " 3/4 " " 1.00

**"Jupiter" High Voltage Insulator.**

Large petticoats, high surface insulation, with sister hook.

For circuits up to 12,000 volts.

List No.	Price.
9330	Insulator complete.....\$1.50

Quantity orders of Cutter's specialties will be shipped from Chicago store.

CUTTER'S ELECTRIC LIGHT SPECIALTIES.

Triple Insulation Arm.



This arm is built for all high voltage lamps and the only one adapted for use with alternating series lamps.

List No. Price.
4066 Cross-arm complete.....\$1.50

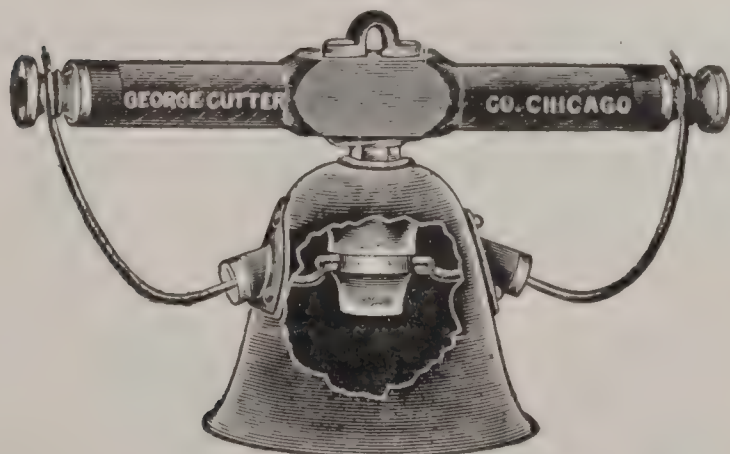
Combination Cross-Arm.



For low voltage only.

List No. Price.
9334 Cross-arm complete.....\$1.20

Suspension Bell.



For Nernst, Meridian or other Edison base lamps. Has steel protecting bell fitted with a porcelain socket.

List No. Price.
9335 Complete with Edison base socket \$2.50
9336 " " Ins. Hook (for 3 or 6 glower Nernst Lamps)..... 2.50

High Voltage Cross-Arm.



Combines the high voltage insulator with an enameled spreader arm, malleable iron, trimmed.

Strong and well made.

List No. Price.
9333 Cross-arm complete..\$1.40

Jupiter Cross-Arm.



Jupiter insulator and cross-arm combined. The ideal insulating arm for use on high voltage circuits.

List No. Price.
9337 Complete. as per cut, \$2.00
9338 Same, fitted to pulley knob..... 2.30

Quantity orders of Cutter's specialties will be shipped from Chicago store.

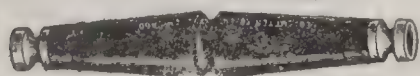
CUTTER'S ELECTRIC LIGHT SPECIALTIES.

Triple Insulation Arm With Knob.



List No. (For use with lamp-supporting pulley) Price
9340 Knob with triple insulation arm.....\$1.80

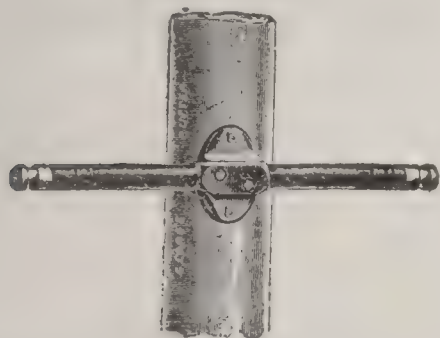
Plain Arm.



Enameled wood with metal bound ends and por. knobs.

List No. Price.
9341 Plain arm.....\$0.30

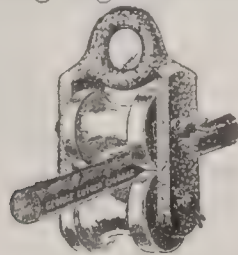
Brace Arm.



Enameled wood metal bound ends, porcelain knobs, curved pole plate.

List No. Price.
9342 Brace arm, complete.....\$0.56

Swinging Insulator.



Wire moves freely between porcelain rollers, malleable iron, takes wire up to $\frac{3}{4}$ in. diameter.

List No. Price.
9343 Insulator.....per doz., \$4.00

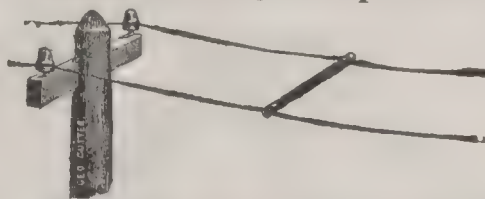
Economy Arm.



Low voltage arm with sister hook.

List No. Price.
9344 Arm complete.....\$0.50

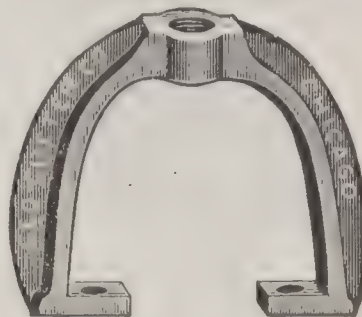
Feather-weight Spreader.



18 in. long, weight, 8 oz. enameled wood, metal tipped porcelain insulator.

List No. Price.
9345 Spreaderper doz., \$3.00

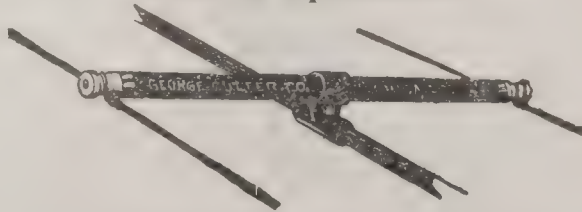
Hood Fork.



Fits G. E. Co's No. 25713 porcelain receptacle, allowing this to be used with any form of Cutter's street hood, and No. 25111 porcelain series socket.

List No. Price.
9346 Hood fork.....\$0.20

Guide Spreader.



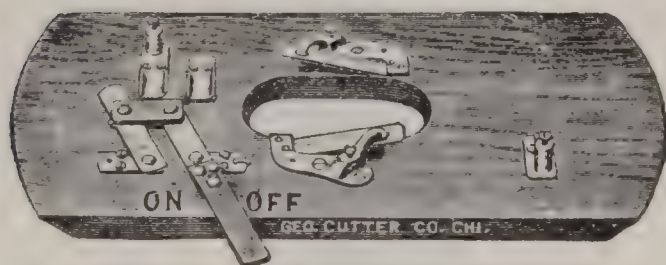
An enameled insulating arm with a collar to clasp the suspension cable. Keeps the line wires 18 inches apart.

List No. Price.
9347 Spreader complete \$0.40

Quantity orders of Cutter's specialties shipped from Chicago stock.

CUTTER'S ELECTRIC LIGHT SPECIALTIES.

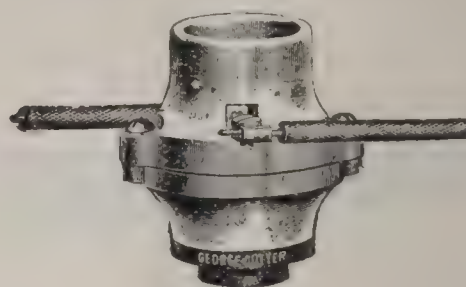
Hood Hanger Boards.



Absolute cut-outs, made of oak, spring contact hooks and switch.

List No.	Price
9350 Cut-out board complete..	\$2 40
9351 Plain hanger board, with binding posts and spring hooks only.....	1 60

Street Hood Socket.



Easy to wire.

List No.	Price.
9357 T. H. base.....each,	\$0 50
9359 West. "	50
9360 Edison "	50

Spreader Hook.



A hanger for arc lamps or fan motors. Malleable iron with porcelain insulators.

List No.	Price.
9353 Spreader hook complete.....	\$0 70

Insulated Suspension Bolt.



Insulates the suspension wire or cable from the pole. Wrought iron, long thread.

List No.	Price.
9361 12 in. nut and washer.....	\$0 36

Insulated Ceiling Hook.



For arc lamps and fan motors.

List No.	Price.
9354 Ceiling hook.....	\$0 50

Insulated Turnbuckle.



Has porcelain insulators in wrought iron forks.

List No.	Price.
9362 Turnbuckle plain.....	\$1 40
9363 " galvanized	1 60

Ceiling Pendant.



Holds wire four inches from ceiling. Has self binding knob.

List No.	Price.
9355 Nozzle 1/8 pipe.....	\$0 20
9356 " 3/8 "	20

Made 1/8 or 3/8 pipe for sockets.

List No.	Price.
9365 Pendant complete.....	\$0 24

Quantity orders of Cutter's specialties will be shipped from Chicago store.

Hook Knob.

A detailed black and white illustration of a mechanical device, likely a pump or engine component. It features a large, circular flywheel with the text "GEO. A. S. C. 1874" inscribed on it. The device has various pipes, valves, and a complex internal mechanism. The overall design is intricate and technical.

Has a clamp which fits the iron pipe and also forms the head-piece for attaching the strain rods.

This is another form of the lamp-supporting pulley, with a clamp to fit standard outrigger pipe ($\frac{3}{4}$ inch bore).

Outrigger Pulley for Large Pipe.

Ceiling Pulley.

For use on bridges, or under beams in shops and yards, etc.

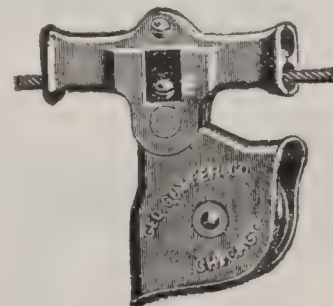
List No.		Price.
9418	Pulley complete with hook knob.....	\$1 80
9416	“ “ “ high voltage cross-arm.....	3 20
9417	“ “ “ triple insulation “	3 30

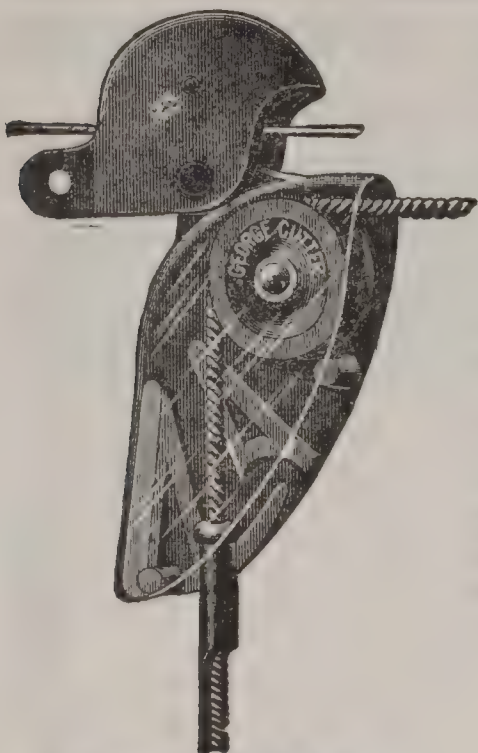
A centre suspension pulley with long clamp and weatherproof casing but no safety features.

Will take any size rope up to $\frac{1}{2}$ inch.

List No.	Price.
9421 Pulley, complete.....	\$0 80

Quantity orders of Cutter's material from Chicago stock.





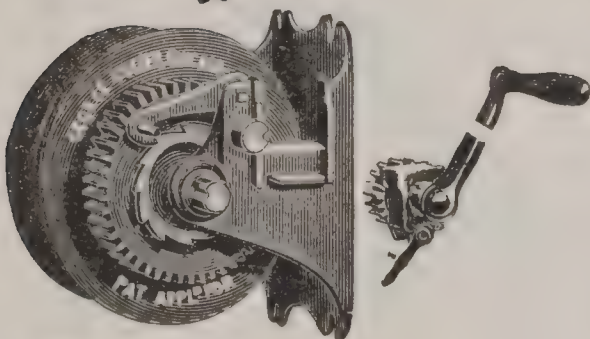
CUTTER'S ELECTRIC LIGHT SPECIALTIES.

Running Pulley.

This is a lamp-supporting pulley with a traveler top, which runs on the suspension cable, allows the lamp to be lowered close to the pole.

The clamp stop furnished with it keeps the lamp and hood from striking the pole.

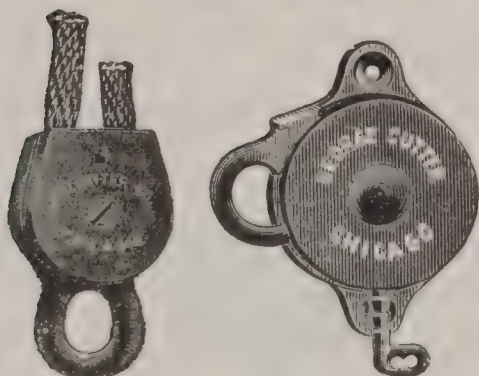
List No.		Price.
9422	Pulley complete with hook, knob and clamp stop.....	\$2 40
9423	“ “ “ high voltage arm.....	3 80
9424	“ “ “ knob, hook, clamp stop and two swivel pole pulleys.....	4 00



Combination Windlass.

Can be used either as plain or as a geared windlass. The pinion is detachable and is fastened to a light handle, so that a single pinion will answer for any number of windlasses. The locking cam can be operated only by the pinion handle, so the device cannot be tampered with. Drum will hold 60 feet $\frac{1}{4}$ inch wire cable or 40 feet of $\frac{3}{8}$ inch rope.

List No.	Price.
4083 Windlass without handle.....	\$4 50
4084 Pinion handle.....	1 80



Rope Clamp.

Made of malleable iron, will clamp any size rope up to $\frac{3}{8}$ inch; used in locking end of hoisting rope to pole.

List No.	Price.
4097 Rope clamp.....	each, \$0 20

Pole Lock.

Has key hole at bottom where rain or sleet cannot reach it. It is non-pickable and weatherproof. Will prevent tampering with hoisting ropes.

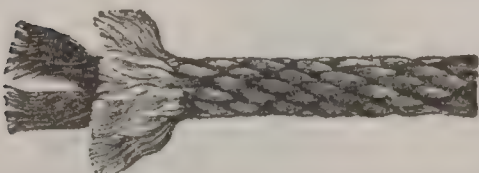
List No.	Price.
4098 Pole lock complete.....	\$0 80
4099 Extra keys.....	20
1 key free with every ten locks.	



Trimmer's Rope.

The rope is thirty feet long, with snap hook at one end and six rings near the other. Strong and well made.

List No.	Price.
9426 Rope complete, 30 feet.....	\$2 50



Banner Core Rope.

A fine braided cotton rope with a weatherproof finish. The $\frac{3}{8}$ and $\frac{1}{2}$ inch size for hoisting arc lamps and $\frac{1}{4}$ and $\frac{5}{16}$ inch for "swinging hoods".

List No.		Price per lb.
9427	$\frac{3}{16}$ inch, about 48 feet to lb.....	\$0 70
9428	$\frac{1}{4}$ " " 40 " " ".....	70
9429	$\frac{5}{16}$ " " 32 " " ".....	70
9430	$\frac{3}{8}$ " " 17 " " ".....	70
9431	$\frac{1}{2}$ " " 12 $\frac{1}{2}$ " " ".....	70



Rope Cleat.

Malleable iron, nicely tinned, rounded edges, strong and neat.

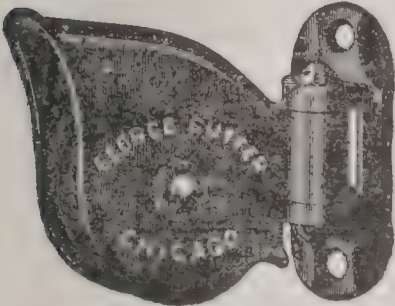
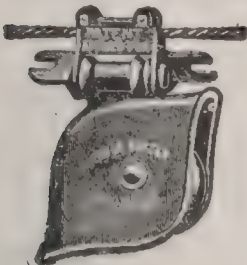
List No.	Price.
9434 Rope cleat complete.....	\$0 30

Cutter's specialties in quantities will be shipped from Chicago stock.

CUTTER'S PULLEYS

Interchangeable Pulley.

A weather-proof pulley that will grip any standard size suspension cable. Clamp can be opened to form a wall plate. Malleable iron.



List No.		Price.
4071	Complete, for 1/2 inch rope.....	each, \$0.80
9435	“ “ for 3/4 inch rope.....	“ 1.20

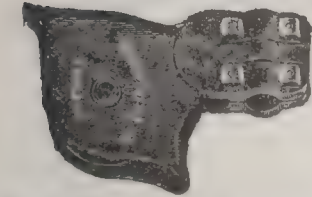
Swivel Pole Pulley.

Weather-proof and has an unbreakable pole plate.

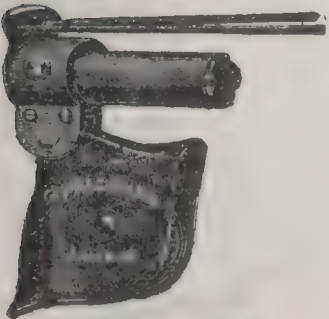
List No.		Price.
9436	Pulley complete, for 1/2 inch rope....	each, \$0.80
9437	“ “ for 3/4 in. rope.....	“ 1.20

Sleeve Pulley.

A weather proof pulley with clamp to grip iron pipe.



List No.		Price
9438	Pulley for 3/4 inch (bore) pipe.....	\$1.00
9439	“ “ 1 1/4 “ “ “	1.00
9440	“ “ 1 1/2 “ “ “	1.00



Plain End Pulley.

A weather-proof pulley with a headpiece to fit iron mast-arms.

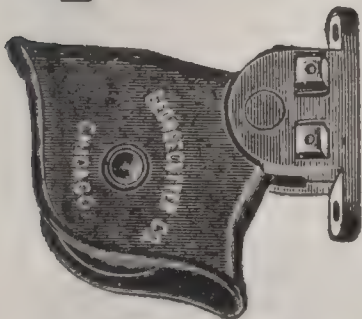
List No.		Price.
9441	Pulley for 1 1/4 inch (bore) pipe.....	\$1.00
9442	“ “ 1 1/2 “ “ “	1.00



Inner Rope Pulley.

For use on mast-arms in which the rope runs through the iron pipe. With hook knob

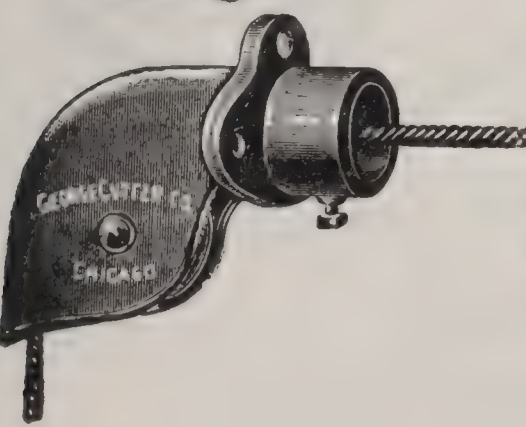
List No.		Price.
9443	Pulley for iron pipe, 1 1/4 inch (bore).....	\$2.00
9444	“ “ “ “ 1 1/2 “ “	2.00



Plain Roof Pulley.

Companion to No. 9418 ceiling pulley.

List No.		Price.
9445	Pulley with ceiling plate.....	\$1.00



Tail Pulley.

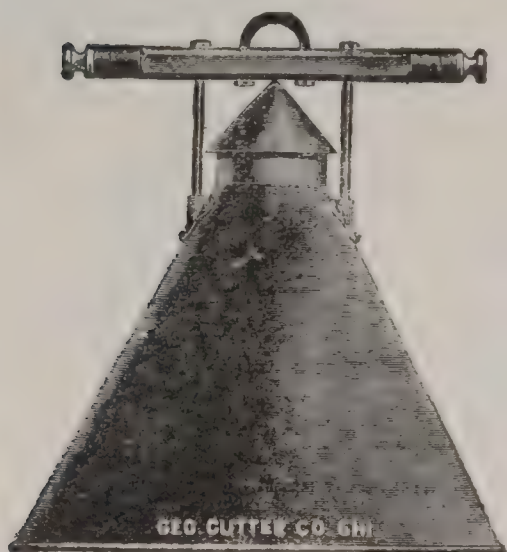
For use with inner rope mast-arms

List No.		Price.
9446	Pulley for 1 1/4 inch (bore) pipe.....	\$1.00
9450	“ “ 1 1/2 “ “ “	1.00

Quantity orders shipped from Chicago stock.

CUTTER'S ELECTRIC LIGHT SPECIALTIES.

Arc Hood.



Made of heavy galvanized iron. Cross-arm is metal trimmed and enameled.

List No.	Price.
9451 Arc hood, with cut-out board,	\$6 00
9452 " " plain hanger "	4 80
9453 " " simple hook,	4 00

Nested for shipment.

Midget Cut-Out Hood.



A small hood for enclosed arc lamps. Has absolute cut-out switch mounted in hood.

List No.	Price.
9458 Hood, with series switch.....	\$4 50
9459 " " multiple switch.....	4 50

For high voltage insulator fitted to top of cross-arm, add 90 cents extra.

Midget Arc Hood.



A heavy galvanized hood for enclosed arc lamps.

List No.	Price.
9454 Hood with simple hook.....	\$2 50

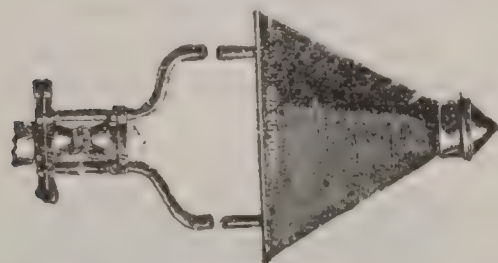
Inclosed Arc Pole Top.



A shadowless pole top with a small hood for use with enclosed arc lamps.

List No.	Price.
4095 Top, with absolute cut-out board.....	\$8 50
4096 " " simple hook only.....	6 50

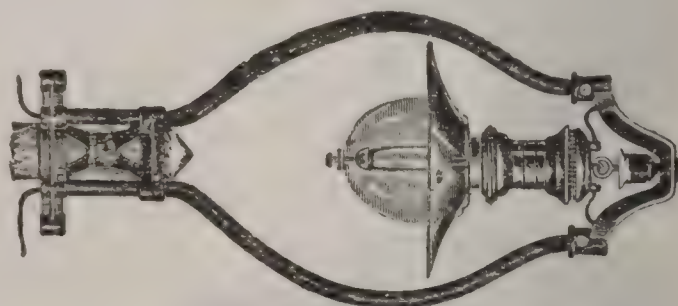
Shadowless Pole Top.



Has no base projecting to cast a heavy shadow. Hood same as No. 9451. Fixture is easily attached to pole.

List No.	Price.
9455 Top, with absolute cut-out board.....	\$9 20
9456 Top, with plain hanger board,	8 00
9457 " " simple hook.....	7 20

Reflector Pole Top.

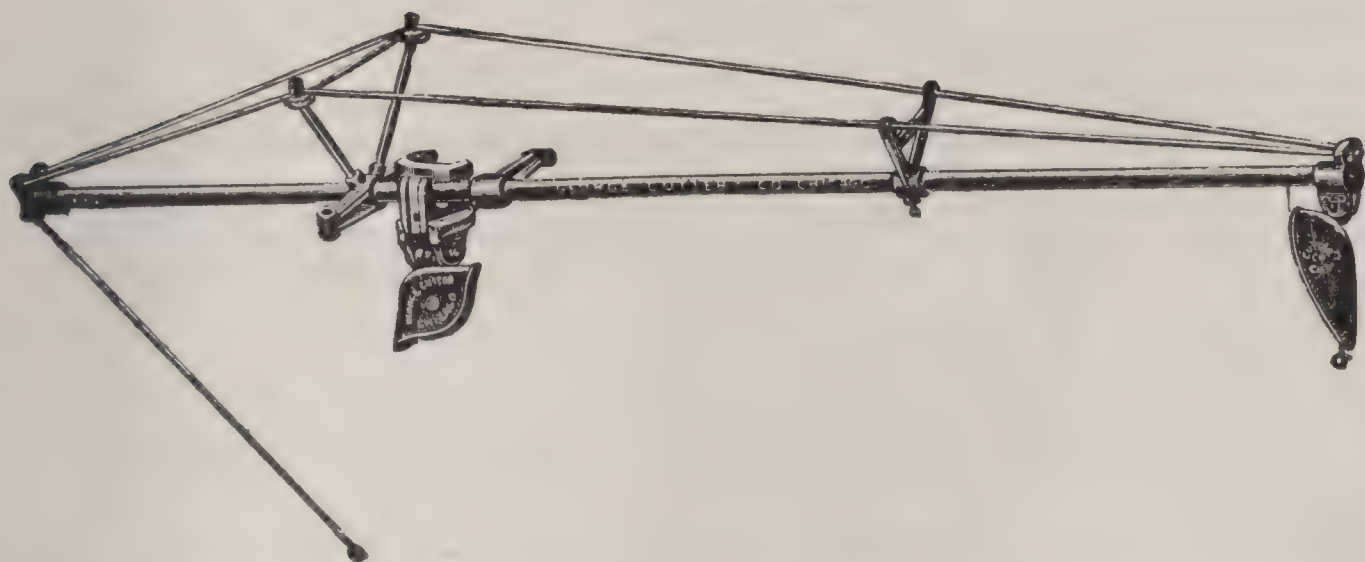


Has a wide spread of pipes, allowing reflectors to be used over globes, and an arched top supporting a high voltage insulator.

List No.	Price.
9460 Pole top, complete.....	\$6 50

Quantity orders shipped from Chicago stock.

Wind-braced Mast-Arm.



List No.		Price.
9462	8 ft. long, complete as shown.....	\$15.00
9463	10 " " "	16.00
9464	12 " " "	18.00
9465	14 " " "	19.00
9466	15 " " "	19.50
9467	16 " " "	20.00
9468	18 " " "	21.00
9469	20 " " "	22.00

Overhanging Mast-Arm.

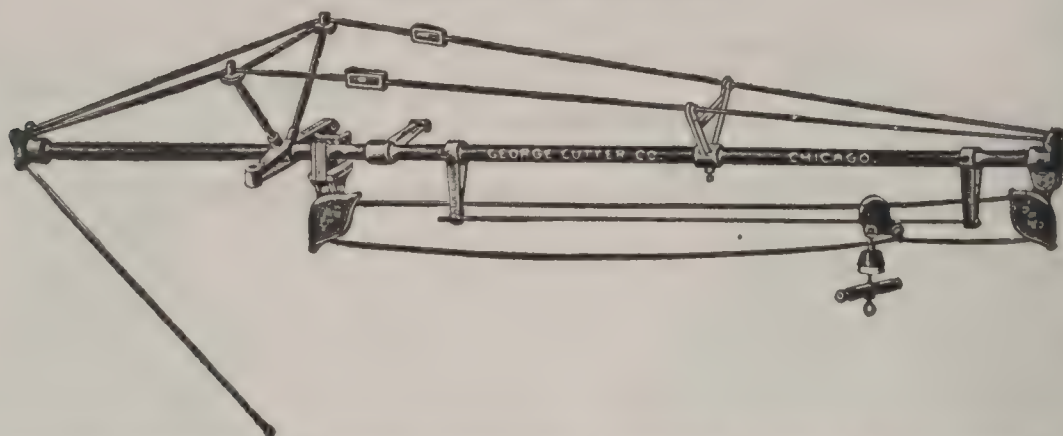


List No.		Price.	List No.		Price.
9470	8 ft. overhang.....	\$15.00	9474	15 ft. overhang.....	\$19.50
9471	10 " "	16.00	9475	16 " "	20.00
9472	12 " "	18.00	9476	18 " "	21.00
9473	14 " "	19.00	9477	20 " "	22.00

Quantity orders shipped from Chicago stock.

CUTTER'S ELECTRIC LIGHT SPECIALTIES.

Traveler Mast-Arm.



A wind-braced mast-arm with traveler attachment allowing the lamp to be trimmed from the pole.
Without rope.

List No.		Price.
9480	15 ft. overhang, with triple insulation arm.....	\$22 00
9481	18 " " " " " "	23 50
9482	20 " " " " " "	24 50

Top Mast-Arm.



Complete with strain rods, tail-rod, steadying braces, stiffening triangle, pulleys, and turnbuckles for strain rods.

List No.		Price.
9483	8 ft. overhang, complete.....	\$15 00
9484	10 " " "	16 00
9485	12 " " "	18 00
9486	14 " " "	19 00
9487	15 " " "	19 50
9488	16 " " "	20 00
9489	18 " " "	21 00
9490	20 " " "	22 00

For triple insulation cross-arm, fitted to above,
add \$1.50 extra.

Standard Mast-Arm.



Complete with strain rods, tail-rod, inner weather-proof pulley, stiffening triangle, lamp-supporting pulley.

List No.		Price.
4075	8 ft. overhang, complete.....	\$15 00
4076	10 " " " "	16 00
4077	12 " " " "	18 00
4078	14 " " " "	19 00
4079	15 " " " "	19 50
4080	16 " " " "	20 00
4081	18 " " " "	21 00
4082	20 " " " "	22 00

For triple insulation cross-arm fitted to above,
add \$1.50 extra.

Junior Mast-Arm.

This is a low priced, well braced and complete mast-arm.

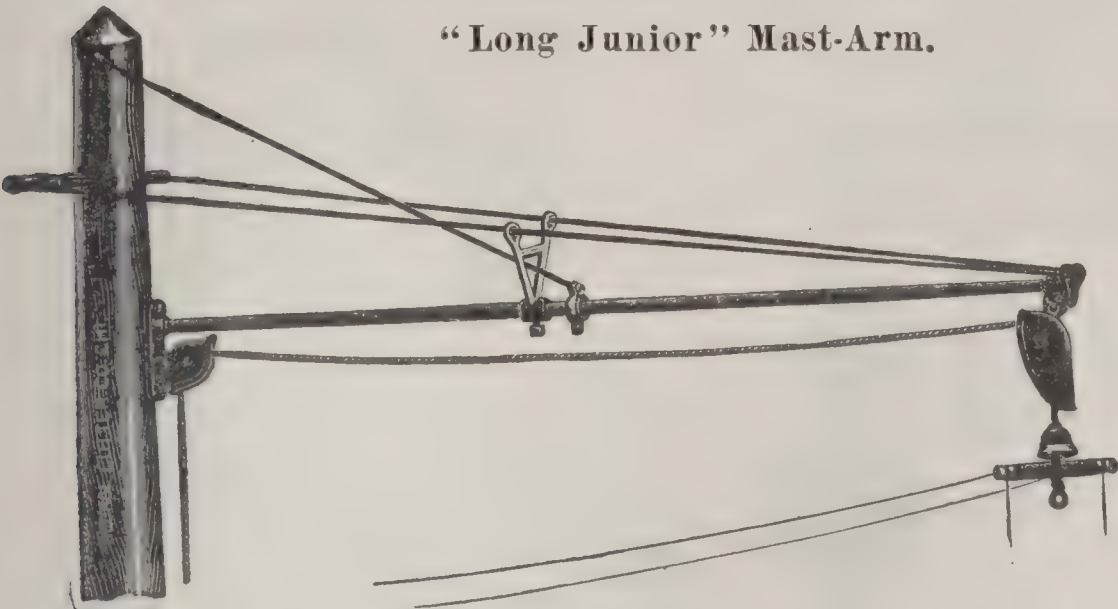
Furnished complete with brace-arm, strain rods, spreader pole, plate and pulleys.

List No.		Price.
4100	6 ft. long, complete.....	\$7 80
4101	8 " " "	8 60
4102	10 " " "	9 40
4103	12 " " "	10 20
4104	14 " " "	11 00

For triple insulation cross-arm fitted to above,
add \$1.50 extra.

Quantity orders shipped from Chicago stock.

CUTTER'S ELECTRIC LIGHT SPECIALTIES.



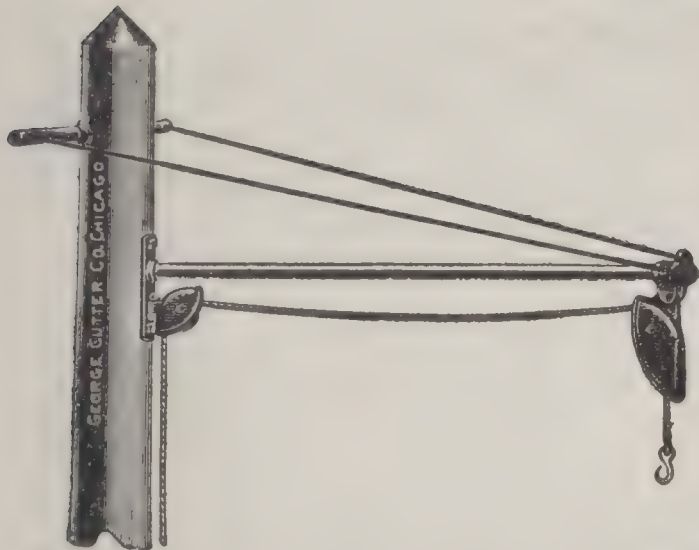
“Long Junior” Mast-Arm.

Complete with double-braced strain arm, three strain rods, stiffening triangle. Weather-proof pulley fastened to pole, plate and outer lamp-supporting pulley.

List No.	Price.
9492 14 ft. complete.....	\$12.20
9493 15 “ “	12.60
9494 16 “ “	14.00

List No.	Price.
9495 18 ft. complete.....	\$14.00
9496 20 “ “	15.00

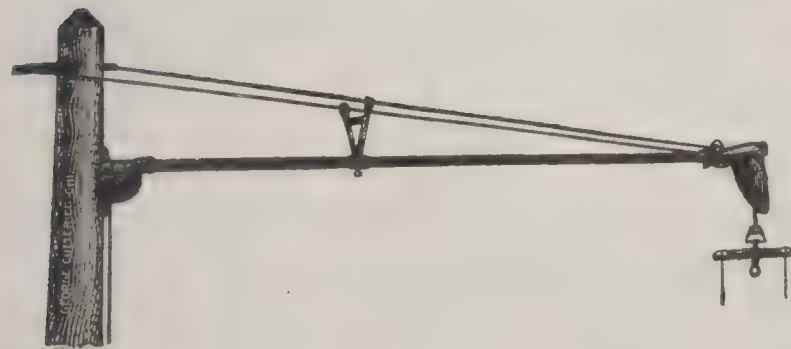
Cadet Mast-Arm.



This arm has wrought iron strain arm, strain rods, weather-proof pole pulley and outer lamp-supporting pulley.

List No.	Price.
9497 4 ft. complete.....	\$6.00
9498 6 “ “	6.80
9499 8 “ “	7.60

Inner Rope Mast-Arm.



This mast-arm allows the rope to pass through the piping; the inner pulley is part of the plate; and an inner rope lamp-supporting pulley is on the outer end.

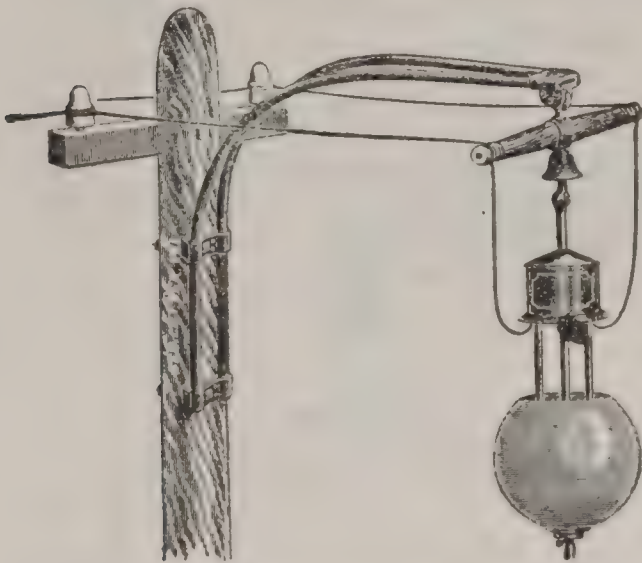
Well made and double-braced.

List No.	Price.
9508 6 ft. long	\$ 8.60
9500 8 “ “	9.40
9501 10 “ “	10.20
9502 12 “ “	11.00
9503 14 “ “	11.80

List No.	Price.
9504 15 ft. long.....	\$13.00
9505 16 “ “	13.40
9506 18 “ “	14.40
9507 20 “ “	15.40

CUTTER'S ELECTRIC LIGHT SPECIALTIES.

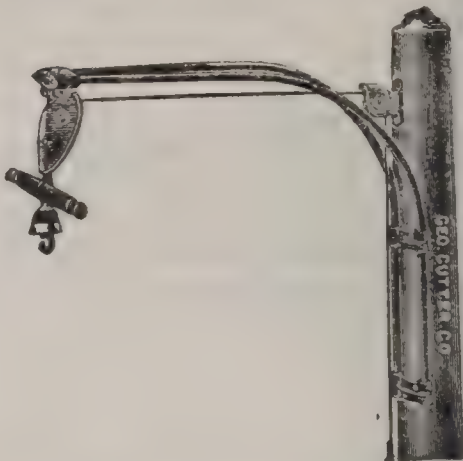
Pole Arc Fixture.



Holds lamp two feet from pole. Wrought iron with malleable iron fittings.

List No.	Price.
4085 Complete, with high voltage cross-arm.....	\$5 20
4086 Complete, with combination cross-arm.....	5 00

Pulley Pole Fixture.



Holds lamp three feet from pole. Complete with pulleys.

List No.	Price.
4106 Complete, with high voltage cross-arm,	\$7 40
9510 " triple insulation "	7 50
4105 " pulleys only, no "	6 00

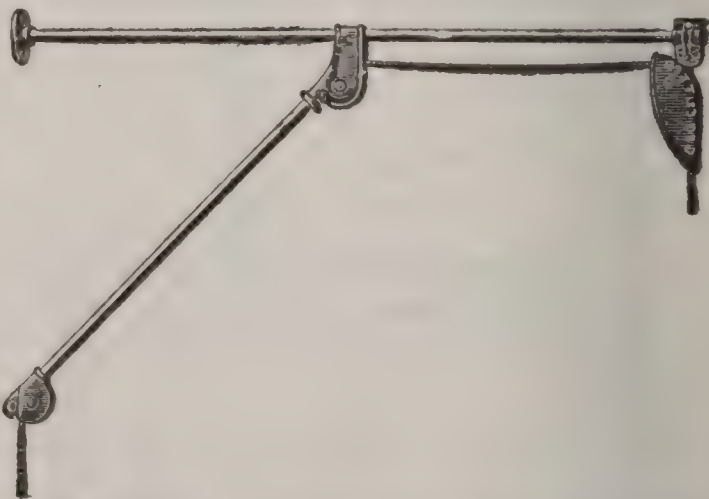
Jupiter Pole Fixture.



Same as No. 4085, except it has Jupiter cross-arm.

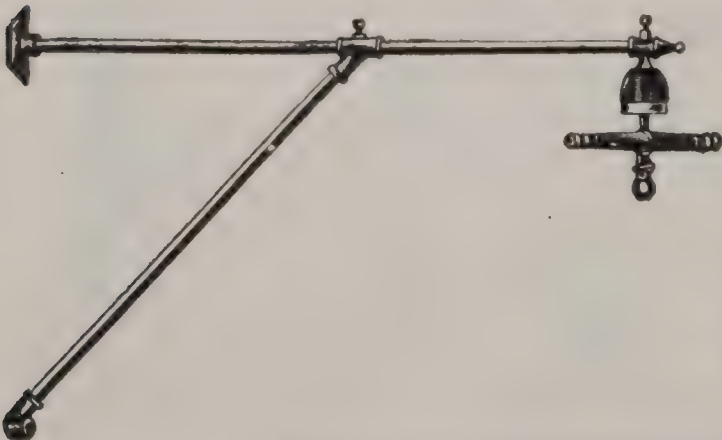
List No.	Price.
9511 Complete, with curved foot plate,	\$5 50
9512 " " flat "	5 50

Inner Rope Bracket.



Has pulley for lowering the lamp, the rope passing through piping, the outer pulley being lamp-supporting. Without rope.

List No.	Price.
9513 3 foot long, as shown.....	\$3 60
9515 6 " " " " " " " " " "	4 00
9516 3 " " with triple insulation cross-arm	5 10
9517 6 " " " " " " " " " "	5 50



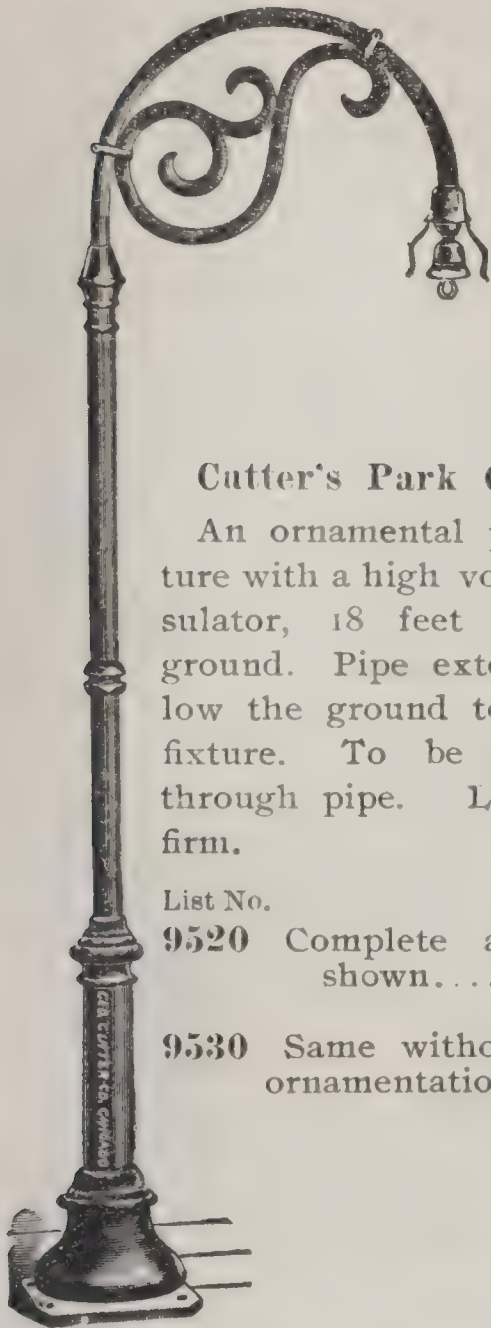
Plain Arc Bracket.

A plain bracket with triple insulation arm.

List No.	Price.
9518 2 foot long, complete,.....	\$3 20
9519 6 " " " " " " " " " "	3 60

Quantity orders shipped from Chicago stock,

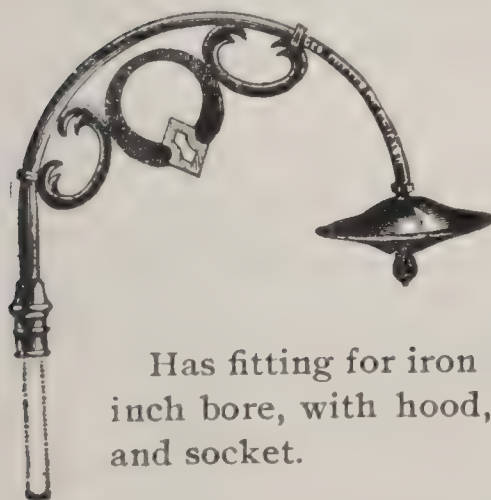
CUTTER'S ELECTRIC LIGHT SPECIALTIES.

**Cutter's Park Crook.**

An ornamental post fixture with a high voltage insulator, 18 feet above ground. Pipe extends below the ground to steady fixture. To be wired through pipe. Light but firm.

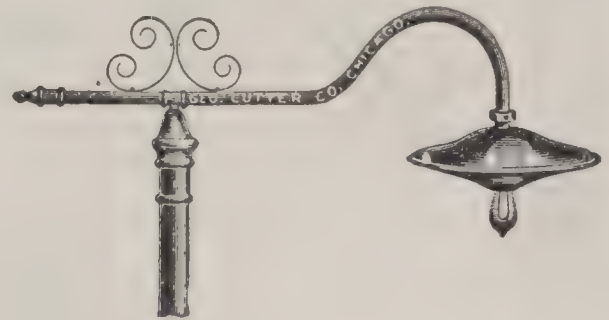
List No.	Price.
9520 Complete as shown.....	\$39.00

9530 Same without ornamentation,	35.00
----------------------------------	-------

Pole Top Crook.

Has fitting for iron pipe, 1 1/2 inch bore, with hood, reflector and socket.

List No.	Price.
9521 Complete, Ed. base.....	\$6.00
9522 " T H "	6.00
9523 " W. H. "	6.00

Over-Hanging Hood Fixture.

With three-foot over-hang and cap for 2 1/2 in. (bore) iron pipe or a wood pole, trimmed to 3 inches at the top.

List No.	Price.
9524 Complete, Ed. base.....	\$5.00
9525 " T. H. "	5.00
9526 " W. H. "	5.00
9527 With series nozzle, no socket.....	4.70

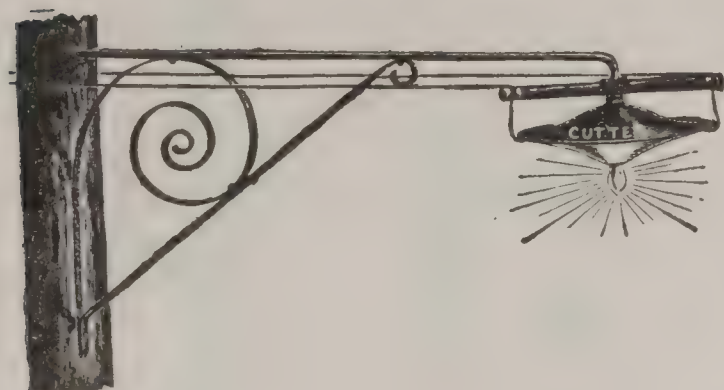
Pole Top Bell Crook.

An ornamental pole top with cap to fit iron pipe of 1 1/4 inch bore. For Nernst or Meridian lamps.

List No.	Price.
9528 Complete, Ed. base.....	\$6.00
9529 " insulated hook ..	6.00

Quantity orders shipped from Chicago stock.

CUTTER'S ELECTRIC LIGHT SPECIALTIES.



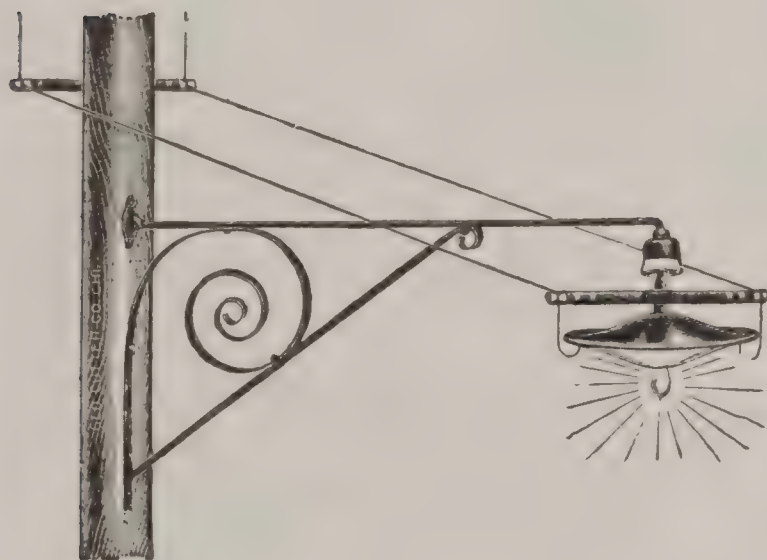
Boulevard Street Hood.

An ornamental five-foot bracket with wrought iron trimmings.

With brace-arm.

List No.	Price.
9532 Complete, Ed. base.....	\$5 00
9533 " T. H. "	5 00
9534 " W. H. "	5 90
9535 " without nozzle and socket	4 50

Without brace-arm, 56 cents less.



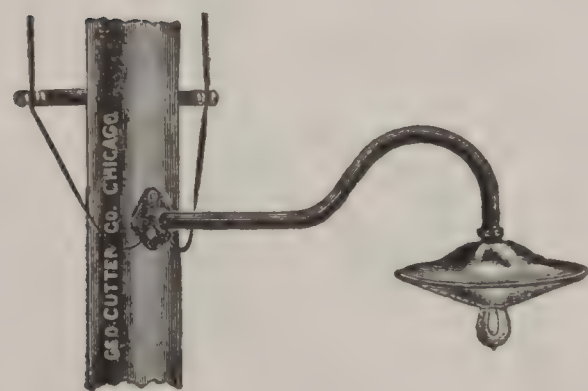
Avenue Street Hood.

Same as above, but with high voltage insulator.

Without brace-arm.

List No.	Price.
9536 Complete, Ed. base.....	\$5 40
9537 " T. H. "	5 40
9538 " W. H. "	5 40
9539 " without nozzle or socket	4 90

Brace-arm for above, 56 cents extra.



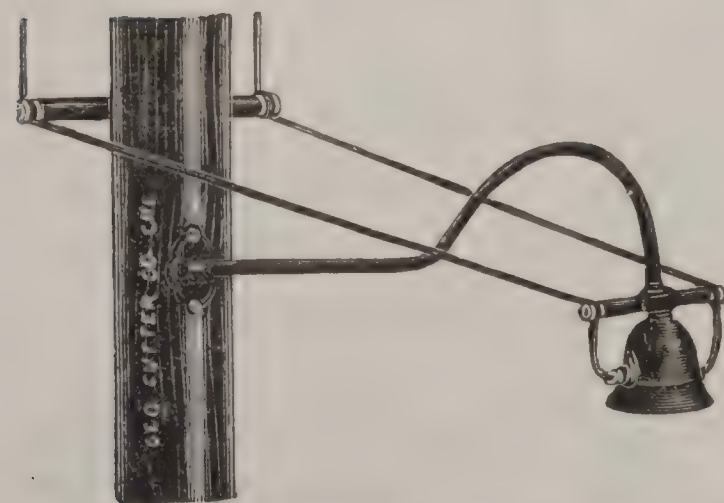
Inner Wired Street Hood.

Has special pole plate and is wired through pipe. Without brace-arm or wiring, but with socket arranged for inner wiring. Three-foot goose-neck.

List No.	Price.
9540 Complete, Ed. base.....	\$2 90
9541 " T. H. "	2 90
9542 " W. H. "	2 90

With brace-arm, 56 cents extra.

Specify series or multiple nozzle.



Bell Bracket.

For Nernst or Meridian Lamps.

Three-foot goose-neck with protecting bell, Ed. base, porcelain socket.

Without brace-arm.

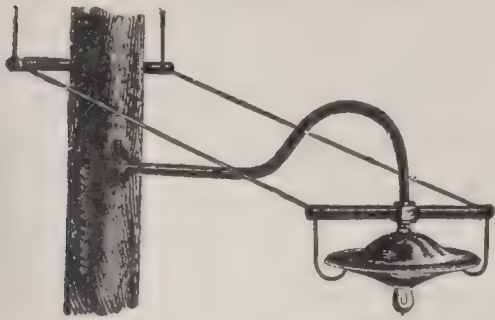
List No.	Price.
9543 3-ft., complete.....each,	\$3 14
9544 4-ft., "	3 23

With brace-arm, 56 cents extra.

Quantity orders shipped from Chicago stock.

CUTTER'S ELECTRIC LIGHT SPECIALTIES.

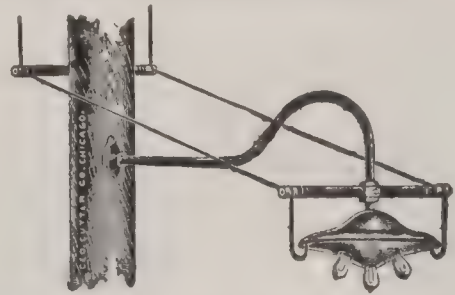
Standard Street Hood.



With brace-arm curved, pole plate, three-foot iron goose-neck enameled arm. Water-proof hood, hinged reflector and porcelain socket.

List No.	Price.
9545 Complete as above, T. H. base.....	\$3 70
9546 " " W. H. "	3 70
9547 " " Edison "	3 70
9548 " " without socket or nozzle.....	3 20
Any of the above without brace-arm, 56 cents less.	

Three-Light Standard Street Hood.

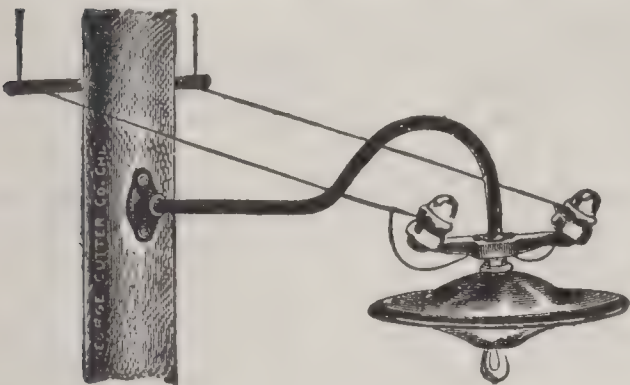


Same as No. 9545 but with Cluster Hood.

List No.	Price.
9556 Complete, 3-light, Edison base.....	\$4 70
9557 " 3 " T. H. "	4 70
9558 " 3 " W. H. "	4 70
9559 " 5 " Edison "	5 70
9560 " 5 " T. H. "	5 70
9561 " 5 " W. H. "	5 70

Any of the above without brace-arm, 56 cents less.

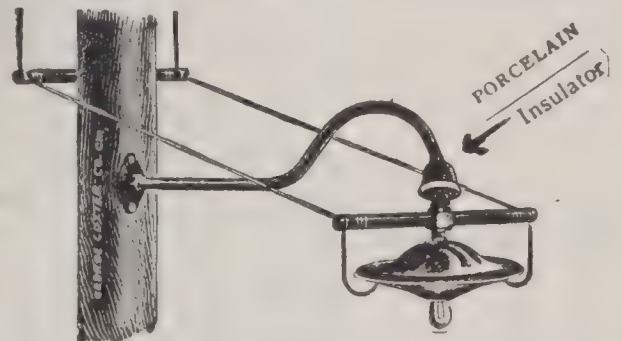
Iron Arm Street Hood.



Same as the above, except it has iron cross-arm with wood pins and glass insulators. Three-foot goose-neck.

List No.	Without brace-arm.	Price.
9549 Complete, Edison base.....		\$3 40
9550 " T. H. "		3 40
9551 " W. H. "		3 40
9552 " without nozzle or socket..		2 90

High Voltage Street Hood.

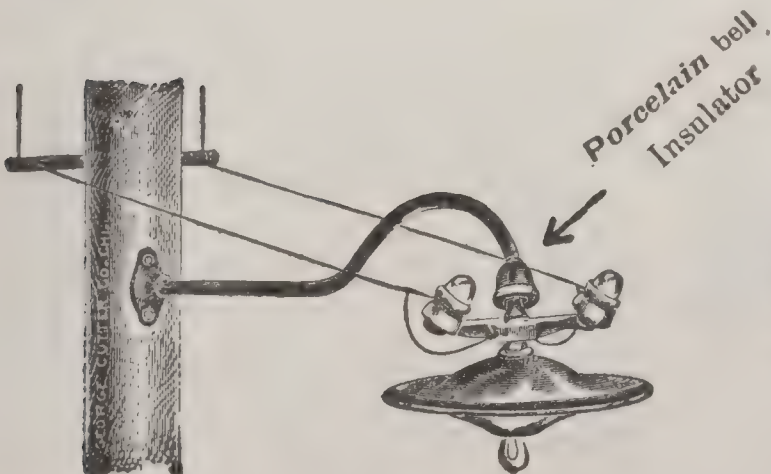


Same as No. 9545 but with a high voltage insulator between the cross-arm and the goose-neck. Triple insulation between socket and goose-neck.

With brace-arm, three-foot goose-neck, enameled cross-arm and socket.

List No.	Price.
9565 Complete, Edison base	\$4 70
9566 " T. H. "	4 70
9567 " W. H. "	4 70
9568 " but without nozzle and socket	4 20
Without brace-arm, 56 cents less.	

Eastern Street Hood.



Same as No. 9549 but has high voltage insulator between the cross-arm and goose-neck.

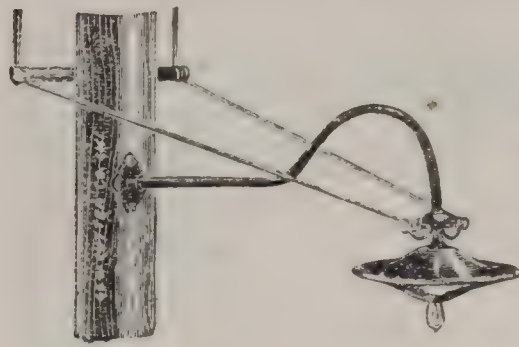
Three-foot goose-neck, without brace-arm.

List No.	Price.
4091 Complete, Edison base.....	\$4 34
9553 " T. H. "	4 34
9554 " W. H. "	4 34
9555 " without nozzle or socket.	3 84

Brace-arm for above, 56 cents extra.

Quantity Orders shipped from Chicago stock.

CUTTER'S ELECTRIC LIGHT SPECIALTIES.

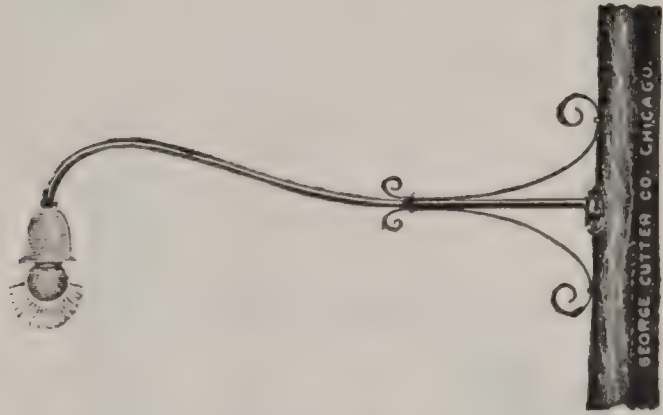


Urban Street Hood.

With three-foot goose-neck and low voltage insulating bell, but without brace-arm.

List No.		Price.
9570	Complete, Ed. base.....	\$3.20
9571	" T. H. "	3.20
9572	" W. H. "	3.20
9573	" without socket.....	2.90

With brace-arm, 56c. extra.



Council Bracket.

Five-foot bracket with protecting bell can be wired through pipe, used for Meridian or Nernst lamp.

List No.		Price.
9574	Complete, Ed. base.....	\$4.00
9575	" with insulating hook for 3 or 6 glower Nernst lamp	4.00

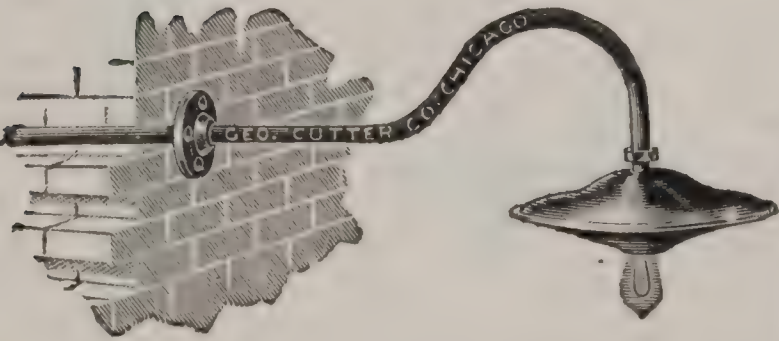


Twelve Inch Bracket Hood.

Same as No. 9545, but with smaller metal parts and cross-arm. Without brace-arm.

List No.		Price.
9576	Complete, Ed. base.....	\$2.90
9577	" T. H. "	2.90
9578	" W. H. "	2.90
9579	" but without socket or nozzle.....	2.40

Brace-arm, 56c. Extra.



Wall Hood.

Has a pipe extending 12 inches inside flange and holding lamp three feet from wall.

List No.		Price.
9580	Complete, Ed. base..	\$3.10
9581	" T. H. " ..	3.10
9582	" W. H. " ..	3.10



Nernst Outlet.

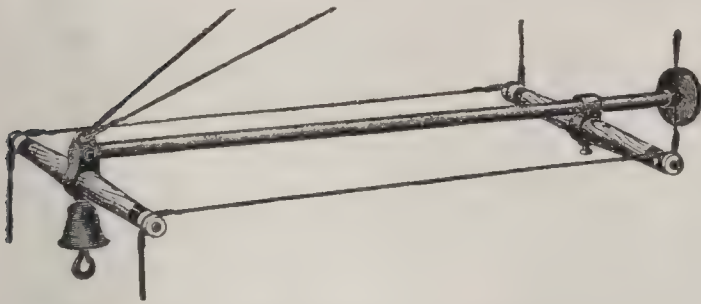
Same as above, but fitted with either Edison socket or insulating hook for Nernst lamp.

List No.		Price.
9583	3 ft. long, with Ed. base,	\$3.10
9584	4 " " " " " "	3.24
9585	5 " " " " " "	3.38
9586	3 " " " ins. hook,	3.10
9587	4 " " " " " "	3.24
9588	5 " " " " " "	3.38

Quantity orders shipped from Chicago stock.

CUTTER'S ELECTRIC LIGHT SPECIALTIES.

Cutter's Outrigger.

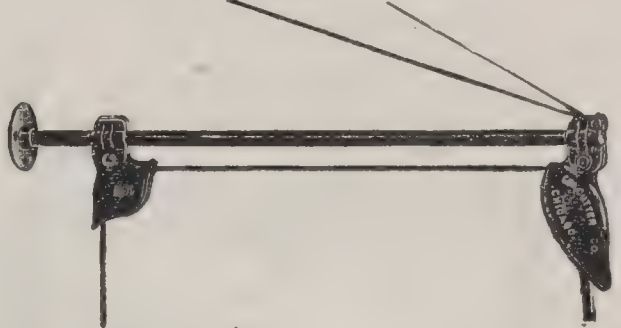


Has wood cross-arms with porcelain line insulators. High voltage insulator for lamp. Six-foot pipe.

List No.	Price.
9590 Complete, for high voltage.....	\$3 00
9591 " " low "	2 80

Other lengths to order.

Pulleyed Outrigger.



Is fitted with lamp-supporting pulley and weatherproof sleeve pulley; both are adjustable on pipe. Six-foot long.

List No.	Price.
4107 Complete.....each,	\$3 00
4108 " with high voltage cross-arm,	4 40

Cast Scroll Bracket.



A neat, low priced ornamental bracket, with high voltage cross-arm. Three-foot long.

List No.	Price.
9592 Bracket, complete.....	\$3 60

Scroll Pulley Outrigger.



An ornamental fixture with weatherproof pulley and lamp-supporting pulley.

List No.	Without rope.	Price.
9595 3-ft. long, complete.....		\$3 60
9596 6-ft. " "		4 00
9597 3-ft. " with triple insulation arm,		5 10
9598 6-ft. " " " "		5 50

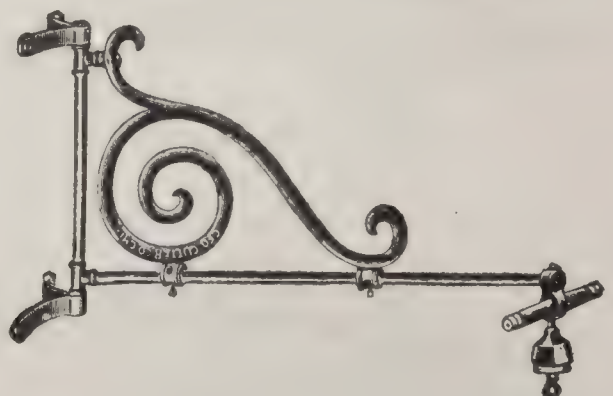
For corner plates, add 40 cents extra.

Station Bracket.



List No.	Price.
9593 3-ft. long, with high voltage cross-arm.....	\$4 00
9594 Same, 6-ft. long, with chains for guying the outer end.....	6 00

Power House Bracket.



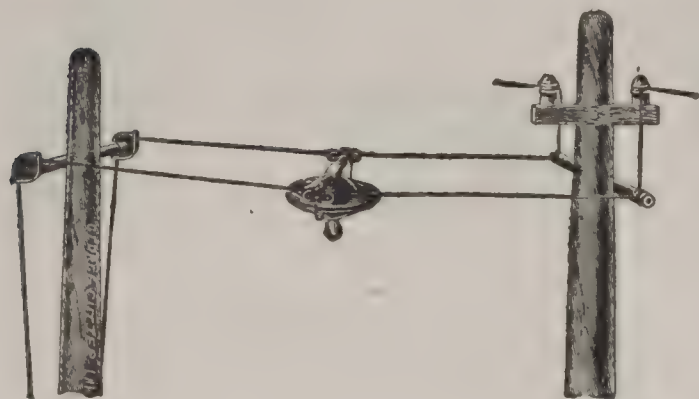
A swinging form of the "Station Bracket." 3-ft. long.

List No.	Price.
9599 Complete, with high voltage cross-arm.....	\$4 80

Quantity orders shipped from Chicago stock.

CUTTER'S ELECTRIC LIGHT SPECIALTIES.

Always Level Street Hood.

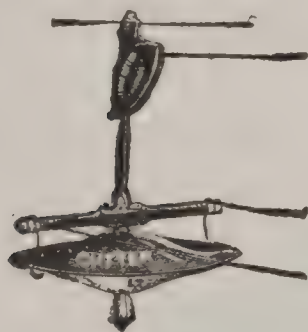


This is the only suspension street hood that will stay level in windy weather. The two wires leading to the hood make up one side of the suspension, while ropes passing over covered pulleys form the other side. Hood is supported from four points.

Shipped complete with hood, porcelain socket, spreader tip arm, iron pulley arm, and pair of adjusting clamps.

List No.	Price.
9600 Complete, with Ed. base.....	\$6 00
9601 " " T. H. "	6 00
9602 " " W.H. "	6 00
9603 " without socket.....	5 50

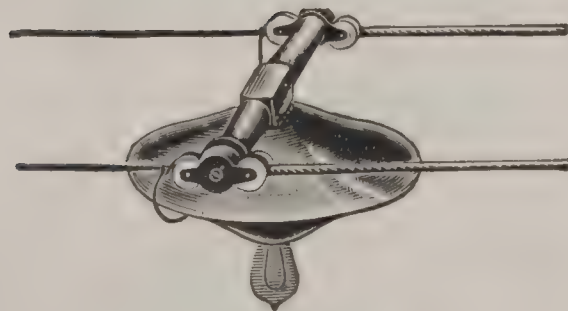
Swinging Hood.



This hood is fitted direct to the knob of Petite lamp-supporting pulley, and is furnished complete with cross-arm and Cutter's street hood socket.

List No.	Price.
4087 Complete, with Ed. base.....	\$3 40
9604 " " T. H. "	3 40
9605 " " W.H. "	3 40

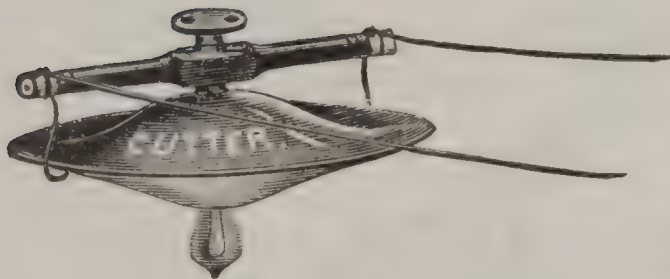
Centre Hood.



With spreader tip arm.
(Centre part of Always Level Street Hood.)

List No.	Price.
9606 Complete, with Ed. base.....	\$2 80
9607 " " T. H. "	2 80
9608 " " W.H. "	2 80
9609 " " series nozzle.....	2 50
9610 " without nozzle or socket.....	2 30

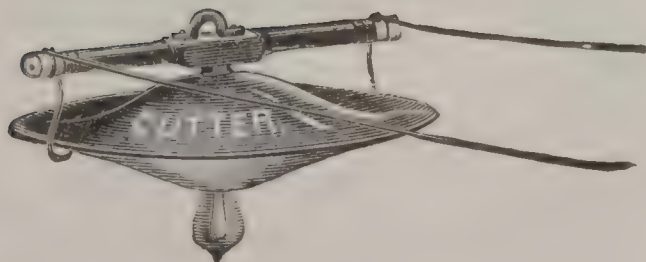
Doorway Hood.



With cross-arm and flange for use in doorways, on bridges, etc.

List No.	Price.
9612 Complete, with Ed. base.....	\$2 40
9613 " " T. H. "	2 40
9614 " " W.H. "	2 40
9615 " without socket or nozzle.....	1 90

Looped Hood.

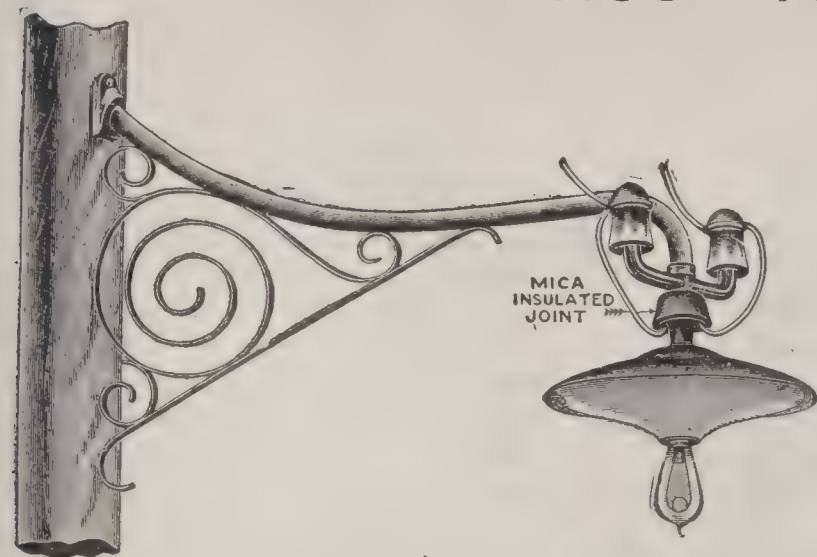


A simple suspension hood with enameled cross-arm and porcelain socket.

List No.	Price.
9616 Complete, with Ed. base.....	\$2 40
9617 " " T. H. "	2 40
9618 " " W.H. "	2 40
9619 " without socket or nozzle.....	1 90

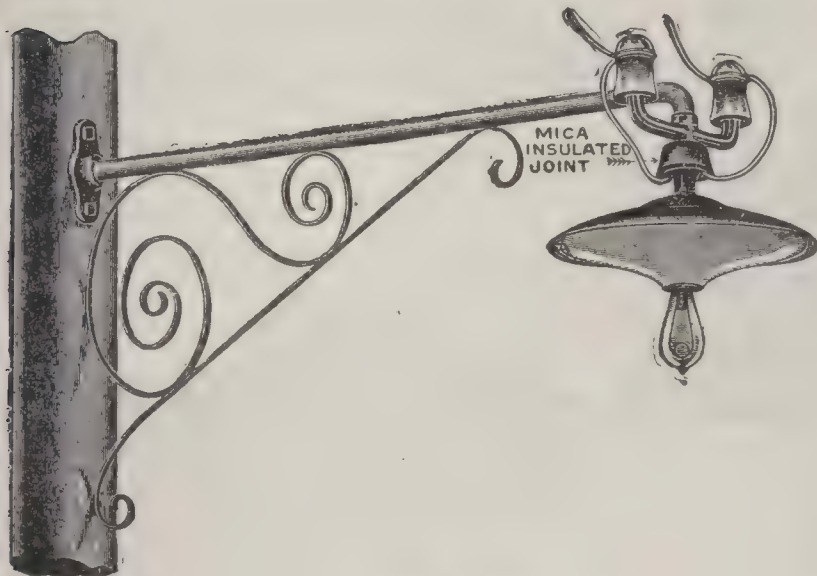
Quantity orders shipped from Chicago stock.

STREET HOOD FIXTURES.

Ornamental Bracket
Fixture.

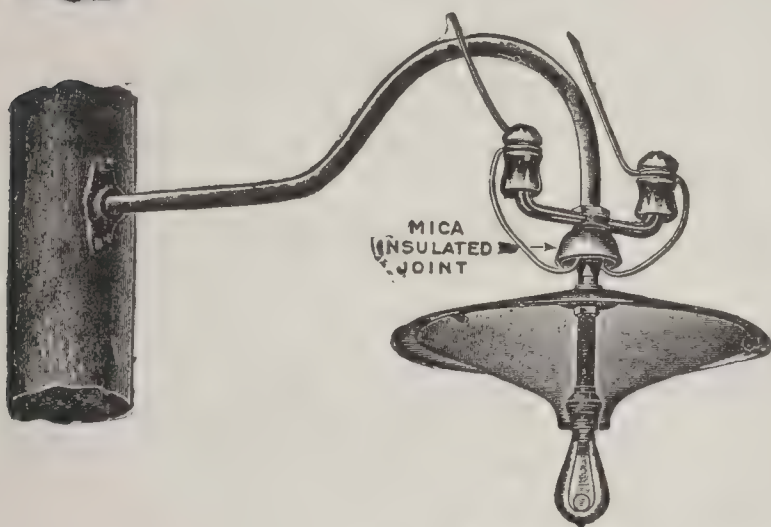
Complete with $\frac{3}{4}$ inch iron pipe goose-neck, wrought iron scroll, iron cross-arm, glass insulators, mica insulating joint and No. 9658 hood and deflector. Not wired. Light four feet from pole.

List No.	Price.
9625 Complete, without socket...	\$6 00
9626 " with Ed. base "	6 40
9627 " " T. H. " "	6 40
9628 " " W. H. " "	6 40

Straight Ornamental
Bracket Fixture.

Complete, same as above. Not wired.

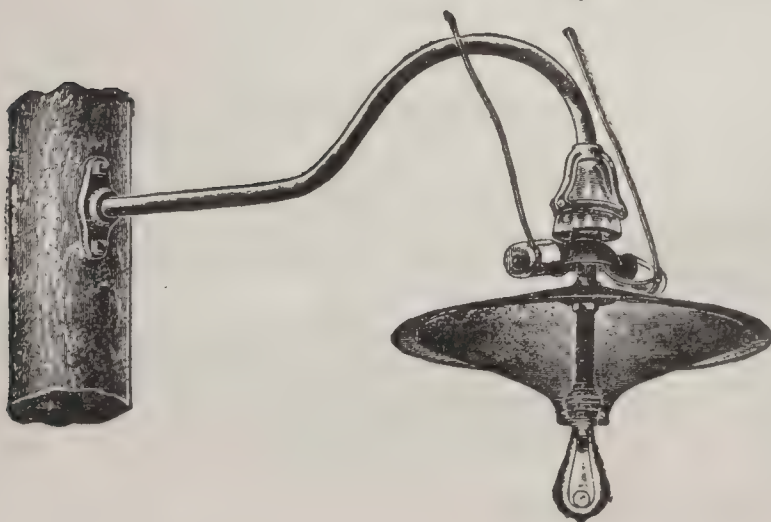
List No.	Price.
9629 Complete, without socket...	\$5 00
9630 " with Ed. base "	5 40
9631 " " T. H. " "	5 40
9632 " " W. H. " "	5 40



Plain Bracket Fixture.

Complete with $\frac{3}{4}$ inch iron pipe goose-neck, iron cross-arm, glass insulators, mica insulating joint and No. 9658 hood and deflector. Light four feet from pole. Not wired.

List No.	Price.
9633 Complete, without socket...	\$2 70
9634 " with Ed. base "	3 10
9635 " " T. H. " "	3 10
9636 " " W. H. " "	3 10



Plain Bracket Fixture.

Complete with $\frac{3}{4}$ inch iron pipe goose-neck, iron cross-arm, porcelain insulators. A double petticoat glass insulator protects wire from grounds.

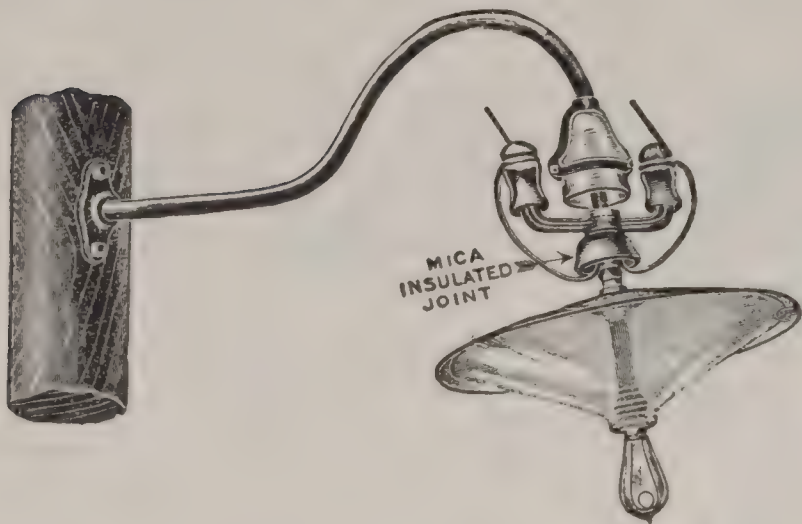
Has No. 9658 hood and deflector. Light four feet from pole. Not wired.

List No.	Price.
9637 Complete, without socket...	\$2 70
9638 " with Ed. base "	3 10
9639 " " T. H. " "	3 10
9640 " " W. H. " "	3 10

Extra lengths to order.

STREET HOOD FIXTURES.

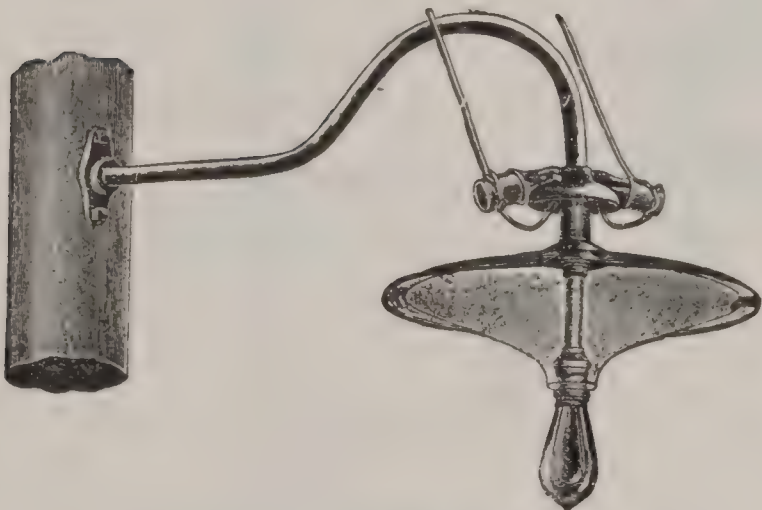
High Voltage Bracket.



Complete with 3/4 inch iron pipe gooseneck, iron cross-arm, glass insulators. Has double insulation and is used for very high voltages. Has No. 9658 hood and deflector. Light four feet from pole.

List No.	Price.
9642	Complete without socket...\$3 25
9643	" with Ed. base socket 3 65
9644	" " T. H. " 3 65
9645	" " W. H. " 3 65

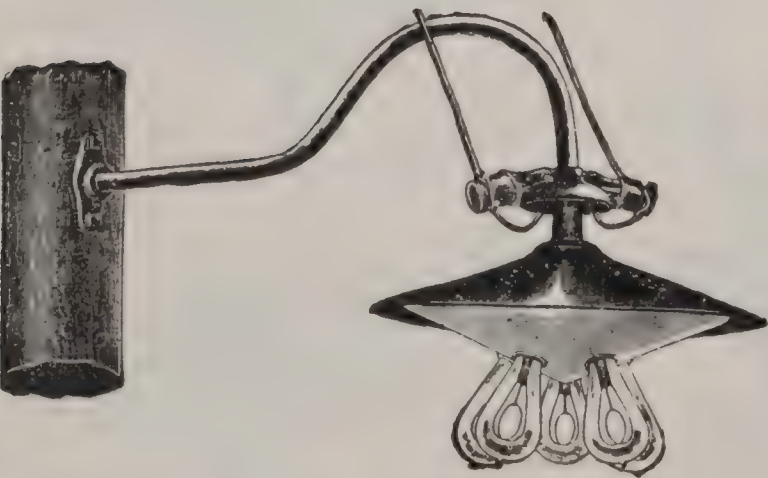
Special Bracket Fixture.



Complete with 3/4 inch iron pipe gooseneck, iron cross-arm, porcelain insulators, etc. Has No. 9658 hood and deflector. This is a strong, durable and waterproof fixture at a very low price. Light four feet from pole. Not wired.

List No.	Price.
9646	Complete without socket...\$2 10
9647	" with Ed. base socket 2 50
9648	" " T. H. " 2 50
9649	" " W. H. " 2 50

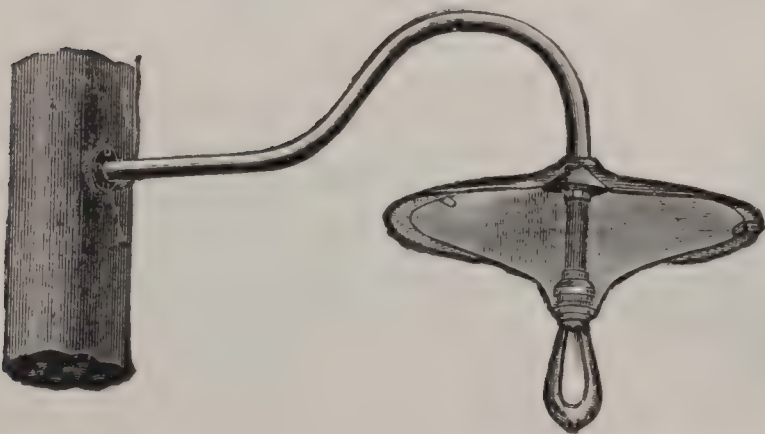
Bracket Cluster Fixture.



Complete with 3/4 inch iron pipe gooseneck, iron cross-arm, porcelain insulators, etc. With sockets. Light four feet from pole.

List No.	Price.
9650	5 light, complete.....\$3 80
9620	4 light, complete..... 3 65
9621	3 light, complete 3 50
9622	2 light, complete..... 3 35

Light Bracket Fixture.

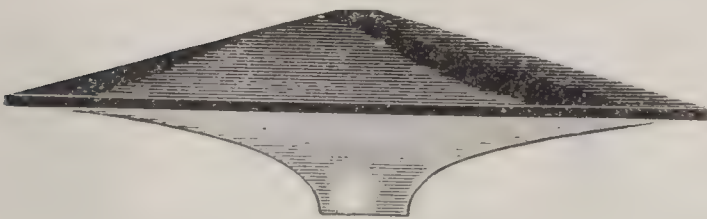


Complete with 3/8 inch iron pipe gooseneck, three-foot long, fitted with flange or crowfoot. No. 9658 hood and deflector.

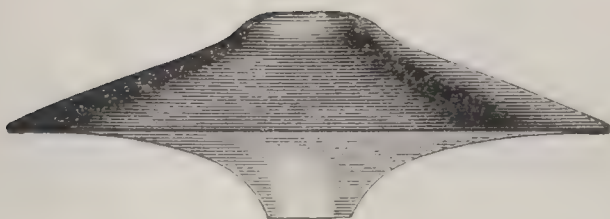
List No.	Price
9653	Complete without socket...\$1 50
9654	" with Ed. base socket 1 90
9655	" " T. H. " 1 90
9656	" " W. H. " 1 90

Extra lengths to order.

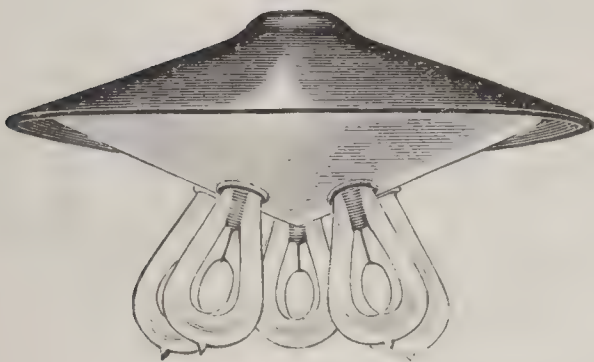
STREET HOODS AND DEFLECTORS.



No. 9658.



No. 9659.

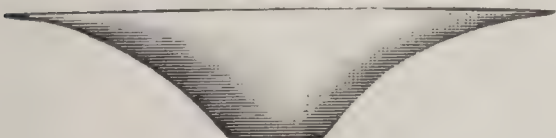


No. 9661.

Hoods Only.

List No.		Price.
9664	Steel hood painted black.....	\$0 35
9665	Galvanized steel hood painted black,	45
9666	Zinc hood.....	50
9667	Copper hood.....	66

All of the above hoods fit $\frac{3}{4}$ inch iron pipe and take $\frac{3}{8}$ inch socket.



No. 9671.



No. 9672.

Steel Hood and Deflector.

14 in. diameter. Without socket.

List No.		Price.
9658	Complete.....	\$0 70

Steel Hood and Deflector. Extra Large.

18 in. diameter. Without socket.

List No.		Price.
9659	Complete.....	\$1 20

Galvanized Hood and Zinc Deflector.

Rust-proof. 14 in. diameter.

This is similar in style to the regular No. 9658, but the hood is made of Extra Heavy Galvanized Steel, japanned, and the deflector is zinc, white enameled. Without socket.

List No.		Price.
9660	Complete.....	\$0 90

Cluster Street Hood.

Hood and white enameled deflector, complete with sockets.

List No.		Price.
9661	Each 5 light, complete.....	\$2 40
9662	" 4 " " ".....	2 25
9663	" 3 " " ".....	2 10
9673	" 2 " " ".....	1 95

Deflectors Only.

List No.		Price.
9668	Steel deflector painted white enamel,	\$0 35
9669	Zinc deflector painted white enamel,	45
9670	Nickel-plated brass or copper deflector.....	90

Any deflector will fit any hood.

Deflector only.

Genuine porcelain enamel on steel. Practically indestructible and permanently efficient.

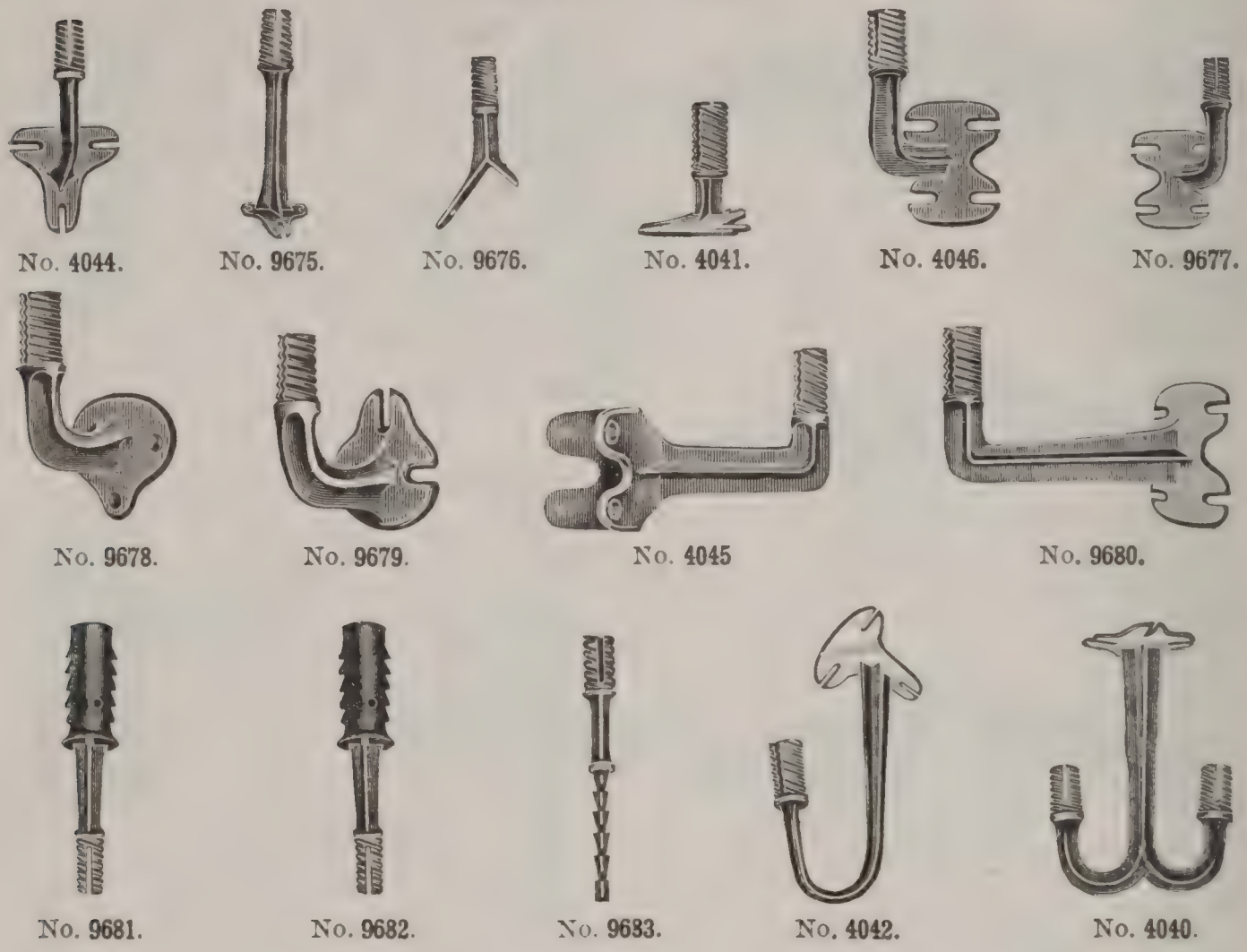
List No.		Price.
9671	Fits No. 9664 hood.....	\$0 90

Bracket Hood.

15 in. in diameter, fits $\frac{3}{8}$ in. iron pipe, takes $\frac{3}{8}$ in. socket. Without socket.

List No.		Price.
9672	Hood and deflector, complete. . .	\$0 60

CHUBBUCK MALLEABLE IRON BRACKETS
AND PINS.

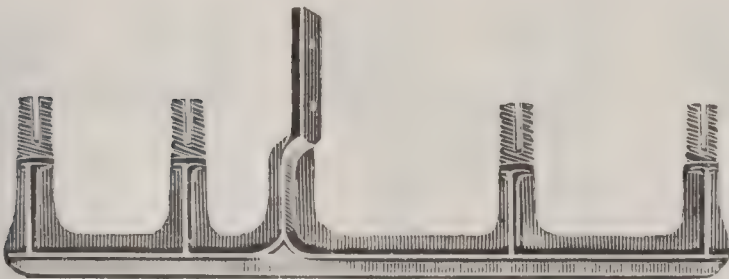


Points of Superiority:

- 1. A screw end for glass insulator which is adjustable and will not break the insulator by changes of hot and cold weather.
- 2. That the triangular fastening will adapt itself to a brick wall without drilling holes and can be spiked on, which saves time in putting up wires.
- 3. That the design is such that gives the greatest amount of strength with the least material.
- 4. That they are sightly, and looks as if an effort was being made to improve the looks of your work.
- 5. They are made of **malleable iron** and will not break, which makes them safe to use.
- 6. The use of these brackets on converter work and cutting in of arc lamps, where wires have to be run on buildings, will increase the insulation of lines over all forms of porcelain or rubber hooks, allowing the use of a regular glass insulator and setting it in the proper position.
- 7. They are sold at a price at which you can afford to purchase, and a new coat of paint makes them as good as new, and can go in your stock after being in use for years.

List No.	Mfrs. No.		Price.
4044	1	Wall bracket.....	per 100 \$15 00
9675	2	Roof bracket, or top of cross-arm.....	" 16 50
9676	5	Hood bracket, for use on cross bars of Thompson-Houston Hood to take the place of porcelain knobs.....	" 15 00
4041	9	Short bracket for roof, top of cross-arm, etc.....	" 15 00
4046	10	Wall bracket for heavy wires.....	" 19 20
9677	70	Curved base bracket for side of pole.....	" 19 20
9678	15	Wall bracket, extra heavy.....	" 27 00
9679	25	Wall bracket for feeder wires.....	" 36 00
4045	20	Corner bracket, for chimneys, etc.....	" 30 00
9680	35	Wall bracket, long arm.....	" 30 00
9681	8	Iron pipe for 1 1/4 inch hole, for use on standard cross-arms.....	" 19 20
9682	3	Iron pin for 1 1/2 inch hole, for use on standard cross-arms.....	" 19 20
9683	6	Iron pin for 1/2 inch hole.....	" 9 90
4042	7	Ceiling or underground angle bracket.....	" 19 20
4040	40	Ceiling or underground bracket, double.....	" 33 00

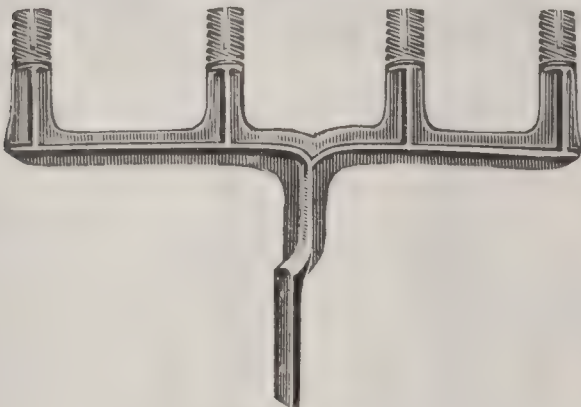
CHUBBUCK MALLEABLE IRON BREAK
ARMS WITH SLOTTED PIN HEADS.



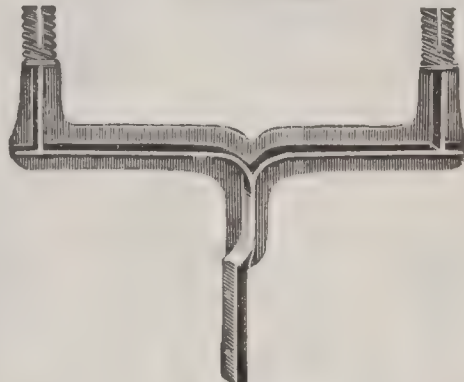
List No. 9685.



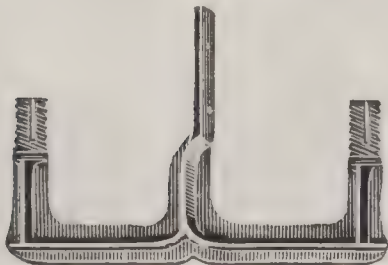
List No. 9686.



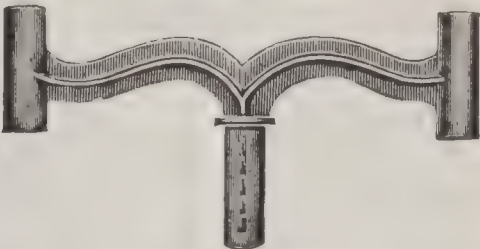
List No. 9687.



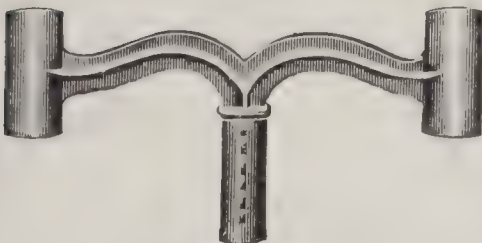
List No. 9688.



List No. 9689.



List No. 9690.



List No. 9691.

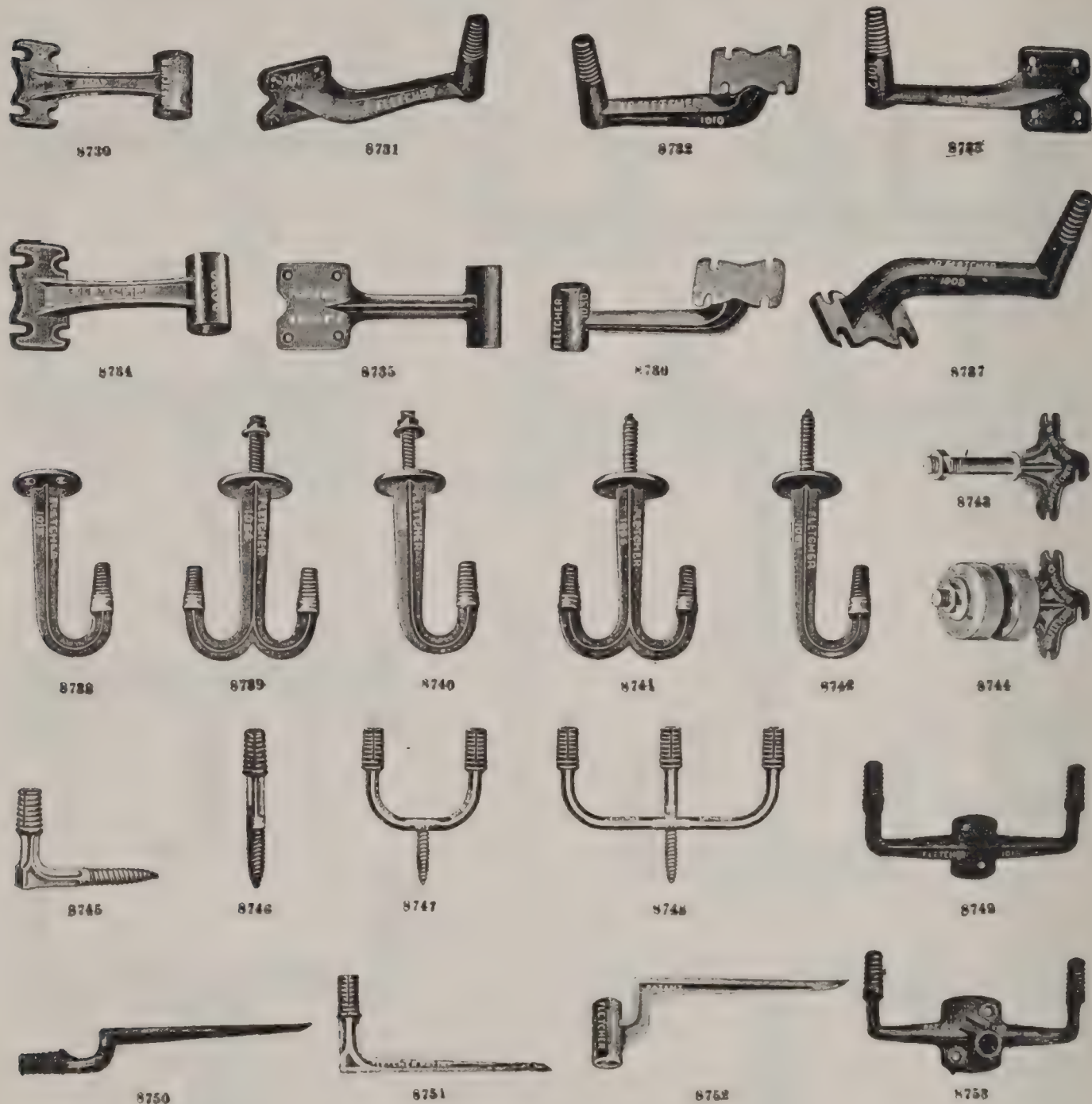


List No. 9692.

Cast iron breaks easily, and will often be broken in shipment and in process of construction. These malleable iron break arms are one-third the weight of cast iron, and will not break under an excessive strain, thereby saving the wire from dropping into the street and grounding.

List No.	Mfrs. No.		Price.
9685	65	Four-point Break Arm.....each,	\$1.30
9686	55	Roof Break Arm.....	.60
9687	60	Four-point Break Arm.....	1.20
9688	45	Double Break Arm, for Telephones, etc.....	.70
9689	50	“ “ “ “ “ “ .....	.60
9690	80	Removable Pin Break Arm, 1¼ inch Thimble, 1¼ inch stem.....	.64
9691	75	Removable Pin Break Arm, 1½ inch Thimble, 1½ inch stem.....	.64
9692	4	Double Break Arm, 1½ inch stem.....	.60

FLETCHER BRACKETS AND BREAK ARMS.

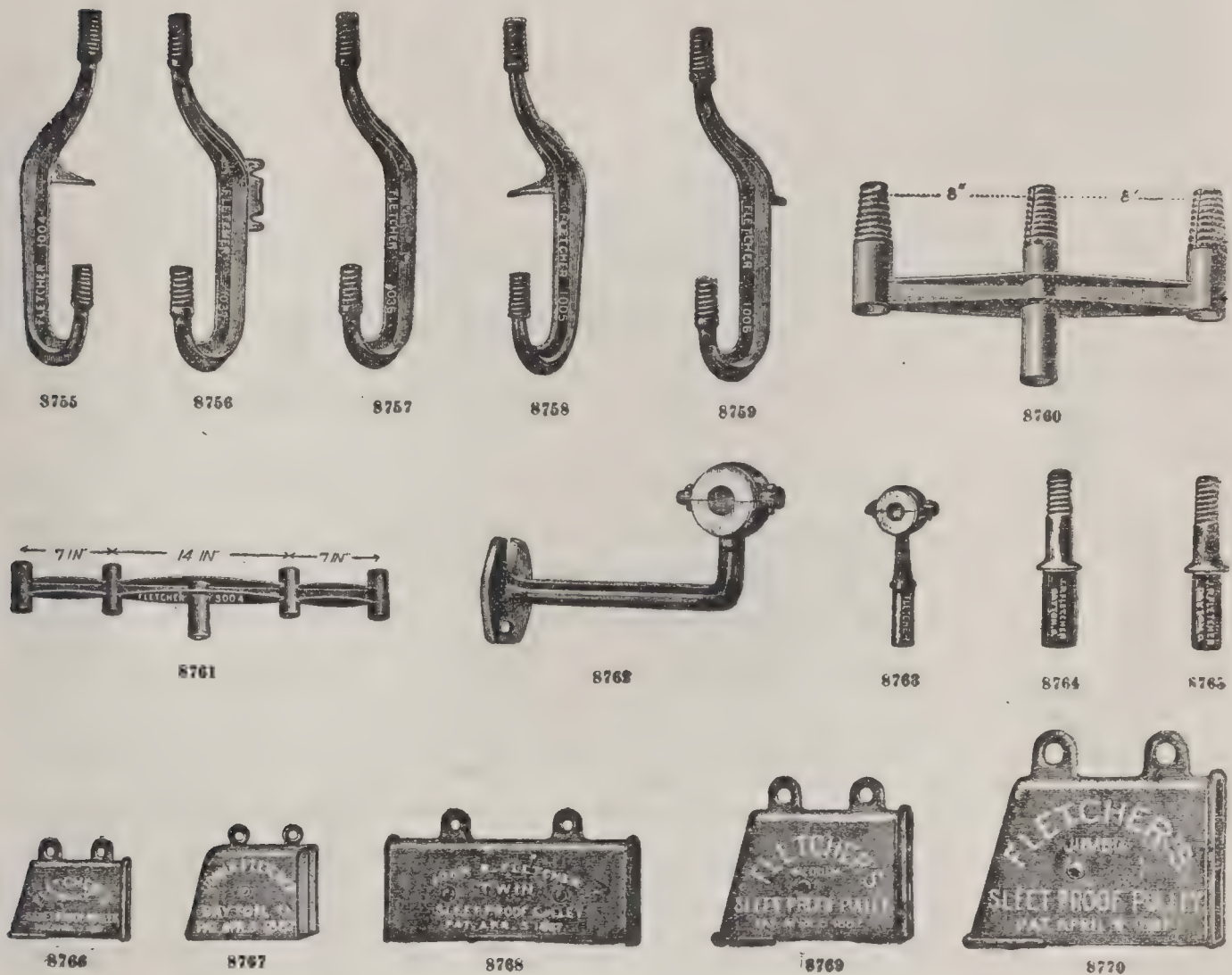


List No. Mfrs. No.

Price.

8730	2007	Thimble Wall Bracket.....	each, \$0	30
8731	1011	Lateral Bracket, Right.....	"	36
8732	1010	Cornice Bracket.....	"	40
8733	1012	Lateral Bracket, Left.....	"	36
8734	2020	Wall Bracket, Extra Heavy, 10-in. Extension.....	"	56
8735	2011	Thimble Bracket, either Right or Left.....	"	36
8736	1030	Thimble Cornice Bracket.....	"	40
8737	1008	Roof Bracket, offset.....	"	40
8738	1013	Ceiling Bracket, Single.....	"	40
8739	1064	" " Double with Bolt.....	"	48
8740	1063	" " Single " ".....	"	40
8741	1066	" " Double with Screw.....	"	48
8742	1065	" " Single " ".....	"	40
8743	990	Insulated Spindles, 1/2-in. groove.....	"	36
8744	991	" " " " " ".....	"	40
8745	1025	Malleable Screw Bracket.....	"	20
8746	1026	" " " " " ".....	"	16
8747	1072	" " Break Arm.....	"	30
8748	1073	" " " " Triple.....	"	46
8749	1015	Converter Bracket, spread 12 inches.....	"	48
8750	1023	Drive Bracket with Pin.....	"	20
8751	1022	" " " " " ".....	"	20
8752	1024	" " " " Thimble.....	"	32
8753	1016	Reflector Bracket, spread 12 inches.....	"	56

FLETCHER IRON BRACKETS, PINS
AND PULLEYS.



List No.	Mfrs. No.		Price.
8755	1004	Loop or Spreader Bracket, Left.....	each, \$0.60
8756	1037	“ “ “	“ .60
8757	1036	“ “ “	“ .60
8758	1005	“ “ “ Right.....	“ .60
8759	1006	“ “ “ Forward.....	“ .60
8760	3003	Break Arm, 3-wire.....	“ .90
8761	3004	“ “ 4 “	“ 1.00
8762	2921	Insulated Iron Bracket, ¼-in. opening.....	“ 1.00
8771	2922	“ “ “ ⅜ “	“ 1.00
8772	2923	“ “ “ ½ “	“ 1.00
8773	2924	“ “ “ ⅝ “	“ 1.00
8774	2925	“ “ “ ¾ “	“ 1.00
8705	2931	“ “ Pin, ¼ “	“ .60
8706	2932	“ “ “ ⅜ “	“ .60
8707	2933	“ “ “ ½ “	“ .60
8708	2934	“ “ “ ⅝ “	“ .60
8763	2935	“ “ “ ¾ “	“ .60
8764	916	Iron Pin, 1 ½-in. Butt.....	“ .30
8765	917	“ “ 1 ¼ “	“ .30
8766	954	Midget Pulley takes ¼-in. rope for Inc. lamps only...	“ 1.20
8767	956	Duplex Pulley (2 wheels) takes ½-in. rope.....	“ 2.40
8768	957	Twin Pulley takes ½-in rope.....	“ 2.00
8769	953	Medium Pulley takes ½-in. rope or ¼-in. flexible iron strand.....	“ 1.70
8770	955	Jumbo Pulley takes 1-in. rope.....	“ 2.40



ONE POINT BRACKET.

PEIRCE CONSTRUCTION SPECIALTIES.

STEEL HOUSE BRACKETS.



TWO POINT BRACKET.



THREE POINT BRACKET.

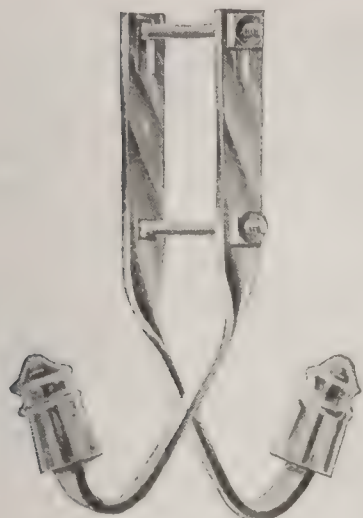
For "open aerial wire" distribution in both Electric light and Telephone work, the Peirce Galvanized Steel House Bracket meets the most exacting requirements. It is strong, it is non-corrosive, and therefore practically indestructible. It is more quickly and securely attached than any other form of bracket. It furnishes an adjustable wood cushion for the insulator which prevents glass breakage and which adjusts itself to any irregularities of the insulator. It insures a uniform method of attachment, a uniform spacing of the wires, and a uniform position on the building. It meets almost all construction conditions in modern city buildings, being placed upright for horizontal "runs" and at a 45 degree angle for vertical "runs." It is not unsightly, and is therefore suitable for fine buildings from which wood brackets are prohibited. It is cheaper than any other metal bracket, and cheaper in first cost than a wood bracket when the cost of installation is considered.

List No.		Price.
13610	1 point Brackets, Galvanized.....	\$0 14
13611	1 " Brackets, Plain	13
13612	2 " Telephone Brackets, Galvanized.....	25
13613	2 " Telephone Brackets, Plain	23
13614	2 " Electric Light Bracket, Galvanized	28
13615	2 " " " " Plain.....	26
13613	3 " " " " Galvanized	42
13617	3 " " " " Plain.....	39

Complete with Pins.

PEIRCE CONSTRUCTION SPECIALTIES.

UNDERHANG BRACKET.



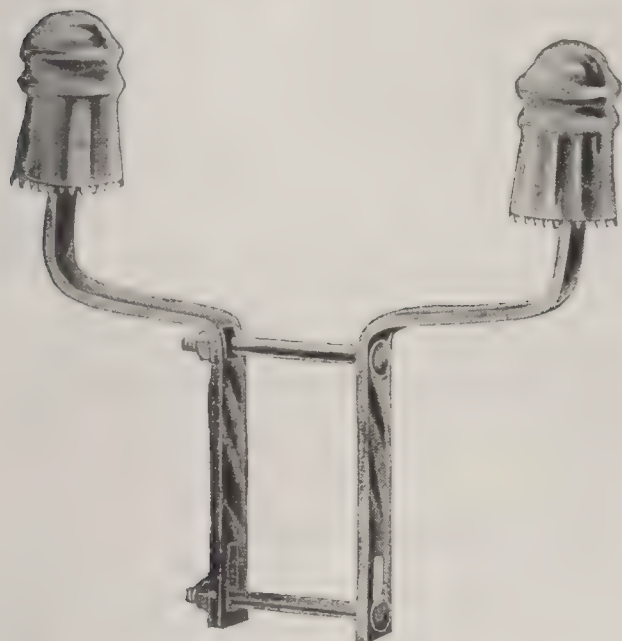
Used for temporarily or permanently doubling the capacity of cross arms.

They do not weaken the arms with bolt holes. They are adjustable for any size arm; are easier put up than porcelain knobs, and afford the best of insulation.

These Brackets are used principally for temporary work, and the ease with which they may be put up or taken down recommends them for this use. Only a small stock is necessary, as they may be used over and over again.

List No.	Price.
13618 Per pair, with Bolts and Split Pins.....	\$0 49

BREAK ARMS.



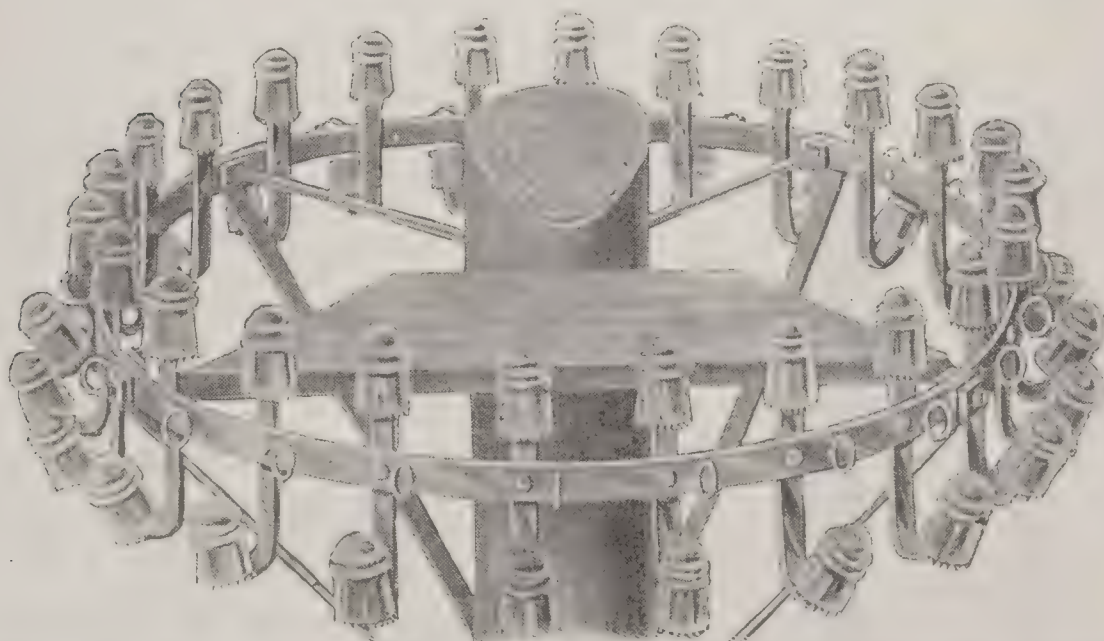
For breaking a through wire for series drop; for dropping from the end of a route arm, or for a transposition.

Peirce Break Arms cost less than others, are more easily put up and no extra tools are required. They do not weaken the arm with holes, and are adjustable to any size arm. When used to drop from the end of an arm they leave the end route pin available, whereas common Break Arms use this space. Insulators cannot pull off.

Peirce Insulator Supports do not break glass insulators through expansion or by screwing the insulator on too tightly.

List No.	Price.
13619 Two-Point Break Arm, with Bolts and Split Pins.....	\$0 40

POLE TOP DISTRIBUTING CIRCLE AND SEAT.



In its improved form it is the easiest Circle to mount, and one size fits any diameter of pole. It furnishes the best insulation and is strong and serviceable.

List No.	Price.
13620 24-Pair Galvanized, complete with Seat, Split Pins, Braces, etc.....	\$17 00
13621 48-Pair Galvanized, complete with Seat, Split Pins, Braces, etc.....	22 44

PINS AND BRACKETS.

OAK BRACKETS.

In crates of 500.

List No.		Price.
4007	12 inch Telegraph Bracket, painted. Per 1000.....	\$25 00
4001	10 inch Pony Telephone Bracket, painted. Per 1000..	22 00

BROWN'S DUPLEX BRACKET.

4002	Per 1000	35 00
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LOCUST PINS.

In crates of 500.

4003	1¼ x 8 inches, not painted. Per 1000.....	25 00
4004	1½ x 9 inches, not painted. Per 1000.....	25 00

OAK PINS.

In crates of 500.

List No.		Price.
4005	1¼ x 8 inches, painted. Per 1000.....	\$20 00
4006	1½ x 9 inches, painted. Per 1000.....	20 00

BROWN'S DUPLEX PIN.

4000	1½ inch Oak, painted. Per 1000.....	25 00
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WESTERN UNION STEEL PIN.

With Wood Top.

4053	½ inch Shank, complete with Hardwood Thimble, Nut and Washer. Per 100.....	9 00
4008	5⁄8-inch, same as above. Per 100	10 00

STEEL PIN WITH ALL WOOD TOP.

These Pins consist of a High Carbon Steel Bolt, a Nut, Washer and Paraffined Wood Top. They are strong, durable and compact, and are amply fortified against lateral strains. Only selected, straight grained and good, sound timber is used in their construction. They are especially adapted to low voltage work.

List No.		Price.
9696	Bolt ½ x 8½ inches, Wood 3½-inch. Per 100..	\$16 09

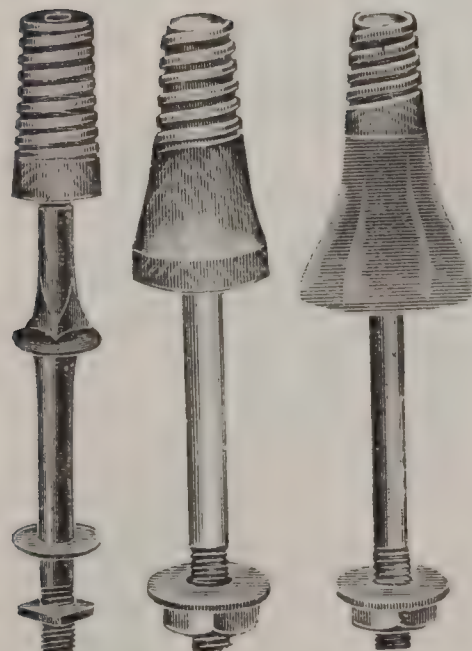
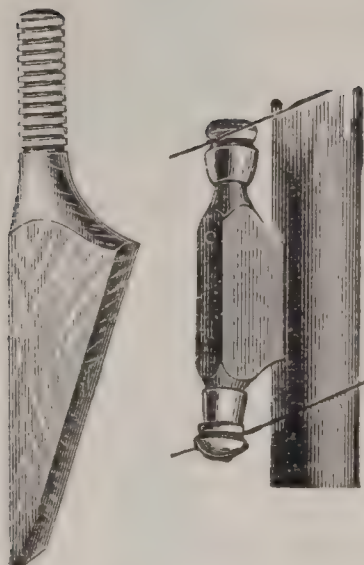
STEEL PIN WITH PORCELAIN BASE.

Designed for high voltage work. They include all the strong features of the all wood top pin in addition to the Porcelain Base.

The Porcelain Base increases the arcing distance 5,000 to 10,000 Volts.

List No.		Price.
9695	Bolt ½ x 9½ inches, Wood Screw Top, Porcelain Base. Per 100.....	\$20 00

Iron Pins listed on page No. 374.

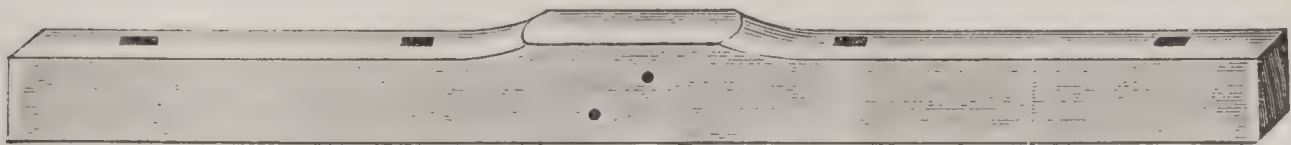


List No.
4053

List No.
9696

List No.
9695

CROSS ARMS.



List No. 3987.

STANDARD ARMS.

3¼ x 4¼ Double Painted and Bored for 1½ inch Pins, and two ½ inch Bolt Holes.

List No.	Length.	No. of Pins.	Spacings. Centre.	Price.
3985	2 ft. long,	for 2 Pins.	Per lineal ft.	\$0 08
3986	3 "	" "	" "	08
3987	4 "	" "	" "	08
3988	5 "	" "	" "	08

List No.	Length.	No. of Pins.	Spacings. Centre.	Price.
3989	6 ft. long,	for 6 Pins.	Per lineal ft.	\$0 08
3990	8 "	" "	" "	08
3991	10 "	" "	" "	08

Standard Arms only are carried in stock.

TELEPHONE ARMS.

Painted two coats. Finished Size 2¾ x 3¾ inch. Bored for 1¼ inch Pins and two ½ inch Bolts.

List No.	Length.	No. of Pins.	Spacings. Centre.	Price.
3992	24 ins.	2	18 ins.	Per lineal ft. \$0 07½
3993	30 "	2	24 "	" " 07½
3994	36 "	2	30 "	" " 07½
3995	42 "	4	16 "	" " 07½

List No.	Length.	No. of Pins.	Spacings. Centre.	Price.
3996	62 ins.	6	16 ins.	Per lineal ft. \$0 07½
3997	82 "	8	16 "	" " 07½
3998	102 "	10	16 "	" " 07½
3999	120 "	12	16 "	" " 07½

STANDARD CROSS ARM BRACES.



BRACES ONLY.

1 7⁄8 x 7⁄8 inches.

List No.	Plain.				Price.
4262	Length,	18 ins.	Per 100	pcs----	\$5 12
4236	..	20 "	" "	" " ----	5 68
4218	..	22 "	" "	" " ----	6 24
4217	..	24 "	" "	" " ----	6 80
4216	..	26 "	" "	" " ----	7 36
4263	..	28 "	" "	" " ----	7 92
4264	..	30 "	" "	" " ----	8 48

List No.	Galvanized.				Price
Length,	18 ins.	Per	100 pcs		
4265	"	"	"	"	\$7 12
4237	20 "	"	"	"	7 62
4223	22 "	"	"	"	8 33
4225	24 "	"	"	"	9 12
4224	26 "	"	"	"	9 83
4266	28 "	"	"	"	10 62
4267	30 "	"	"	"	11 34

STANDARD CROSS ARM BRACES.

Complete with Bolts, Lags and Washers, set consists of: two Cross Arm Braces, two ¾ x 4-inch Brace Bolts, two Round Wrought Washers, one ½ x 4-in. Fetter Drive Screw.

List No.	Plain.				Price
	Length,	18 ins.	Per 100 sets	----	\$
13622	"	20	"	"	15 10
13623	"	22	"	"	16 20
13624	"	24	"	"	17 30
13625	"	26	"	"	18 40
13626	"	28	"	"	19 60
13627	"	30	"	"	20 68
13628	"		"	"	21 80

List No.		Galvanized.				Price
	Length,	18 ins.	Per 100	sets	----	
13629	"	20 "	"	"	"	\$20 38
13630	"	22 "	"	"	"	21 18
13631	"	24 "	"	"	"	22 86
13632	"	26 "	"	"	"	24 38
13633	"	28 "	"	"	"	25 90
13634	"	30 "	"	"	"	27 38
13635	"				----	28 82

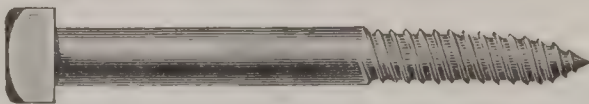
CROSS ARM OR THROUGH BOLTS.

With 4-inch Thread.

List No.	Length.	Per 100 pcs.	Price.
13637	5⁄8 x 10 ins.	Per 100 pcs.	\$6 43
13638	5⁄8 x 11 "	" "	6 86
13639	5⁄8 x 12 "	" "	7 30
13640	5⁄8 x 13 "	" "	7 70
13641	5⁄8 x 14 "	" "	8 14
13642	5⁄8 x 15 "	" "	8 56
13643	5⁄8 x 16 "	" "	8 98

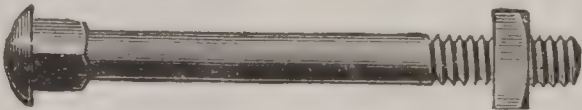
List No.	Length.	Per 100 pcs.	Price.
13644	5⁄8 x 10 ins.	Per 100 pcs.	\$8 50
13645	5⁄8 x 11 "	" "	8 98
13646	5⁄8 x 12 "	" "	9 56
13647	5⁄8 x 13 "	" "	10 12
13648	5⁄8 x 14 "	" "	10 72
13649	5⁄8 x 15 "	" "	11 30
13650	5⁄8 x 16 "	" "	11 86

LAG SCREWS.



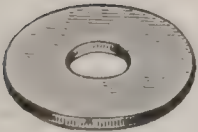
Plain.				Galvanized.			
List No.			Price.	List No.			Price.
4242	1/2 x 3 ins.	Per 100 pcs	\$1 90	13652	1/2 x 3 ins.	Per 100 pcs	\$2 24
4243	1/2 x 3 1/2 "	" "	2 04	13653	1/2 x 3 1/2 "	" "	2 46
4244	1/2 x 4 "	" "	2 20	13654	1/2 x 4 "	" "	2 66
4245	1/2 x 4 1/2 "	" "	2 36	18655	1/2 x 4 1/2 "	" "	2 86
4246	1/2 x 5 "	" "	2 46	13656	1/2 x 5 "	" "	3 00
4247	1/2 x 5 1/2 "	" "	2 60	18657	1/2 x 5 1/2 "	" "	3 22
4248	1/2 x 6 "	" "	2 74	13658	1/2 x 6 "	" "	3 38
4251	1/2 x 6 1/2 "	" "	2 86	13659	1/2 x 6 1/2 "	" "	3 62
4249	1/2 x 7 "	" "	3 00	18660	1/2 x 7 "	" "	3 76
4250	1/2 x 7 1/2 "	" "	3 16	13661	1/2 x 7 1/2 "	" "	3 94
4252	1/2 x 8 "	" "	3 30	13662	1/2 x 8 "	" "	4 14

CARRIAGE BOLTS.



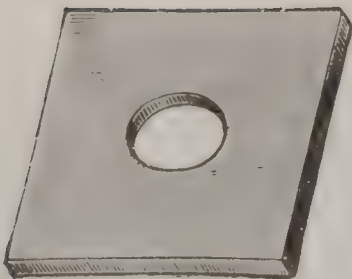
Plain.				Galvanized.			
List No.			Price.	List No.			Price.
4232	3/8 x 4 ins.	Per 100 pcs	\$1 08	13664	3/8 x 4 ins.	Per 100 pcs	\$1 38
4233	3/8 x 4 1/4 "	" "	1 12	13665	3/8 x 4 1/4 "	" "	1 42
4234	3/8 x 4 1/2 "	" "	1 18	13666	3/8 x 4 1/2 "	" "	1 48

ROUND WASHERS FOR LAGS.



List No.			Price.
13668	1 3/8 in.	For 1/2-in. Lags, Plain. Per 100 pcs	\$0 28
13669	1 3/8 "	" 1/2 " Lags, Galvanized. Per 100 pcs	40
13670	1/2 "	" 3/8 " Carriage Bolts, Plain. Per 100 pcs	24
13671	1/2 "	" 3/8 " Carriage Bolts, Galvanized. Per 100 pcs	36
13672	1 9/16 "	" 1/2 " Bolts or Lags, Plain. Per 100 pcs	28
13673	1 9/16 "	" 1/2 " Bolts or Lags, Galvanized. Per 100 pcs	40

SQUARE WASHERS.



List No.			Price.
13676	5 x 5 x 3/16 ins.	For Guy Rods, Galvanized. Per 100 pcs	\$8 98
13677	2 x 2 x 3/16 "	Plain. Per 100 pcs	1 24
13678	2 x 2 x 3/16 "	Galvanized. Per 100 pcs	1 76
4231	2 1/4 x 2 1/4 x 3/16 "	Plain. Per 100 pcs	1 44
13679	2 1/4 x 2 1/4 x 3/16 "	Galvanized. Per 100 pcs	1 98



(PATENTED.)

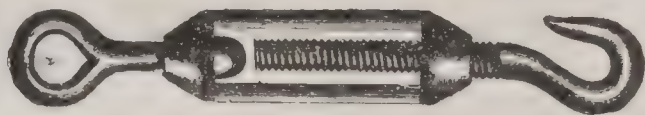
CROSBY CLIPS.

The most effective fasten-
ing in the market.



List No.		Price.
4210	For 1/4-inch strand	\$0 25
4211	" 5/16 "	25
4212	" 3/8 "	25
4213	" 7/8 "	30
4214	" 1 1/2 "	30

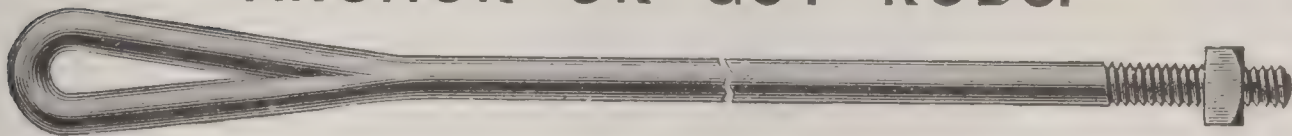
TURN BUCKLES.



WROUGHT IRON. WITH EYE-BOLT AND HOOK.

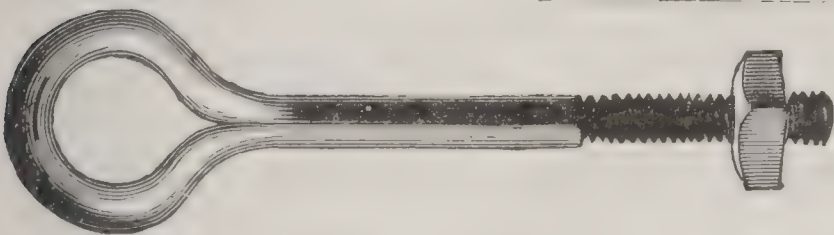
List No.	Outside dia. of thread, $\frac{3}{8}$ -inch.	Length in the clear btwn. heads, 6 ins.	Galv.,	Price.
9710				\$0 76
9711	7-16			88
9712	$\frac{1}{2}$			1 08
9714	$\frac{5}{8}$			1 42
9715	$\frac{3}{4}$			2 10
9718	$\frac{3}{8}$		Plain,	66
9719	7-16			74
9720	$\frac{1}{2}$			92
9722	$\frac{5}{8}$			1 18
9723	$\frac{3}{4}$			1 62

ANCHOR OR GUY RODS.



Furnished with 2 x 2 x $\frac{3}{16}$ Square Washers.

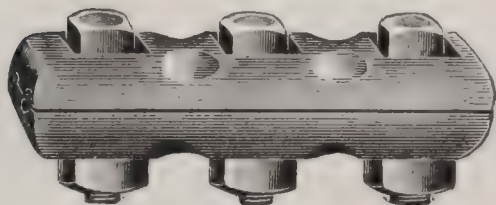
List No.	Plain.	Price.	List No.	Galvanized.	Price.
9726	$\frac{1}{2}$ in. x 6 ft. Lbs. per 100, 479.	\$40 00	9732	$\frac{1}{2}$ in. x 6 ft. Lbs. per 100, 503.	\$52 00
9727	$\frac{1}{2}$ " x 9 " " " " 677.	48 00	9733	$\frac{1}{2}$ " x 9 " " " " 711.	66 00
9728	$\frac{5}{8}$ " x 6 " " " " 700.	48 00	9734	$\frac{5}{8}$ " x 6 " " " " 720.	66 00
9729	$\frac{5}{8}$ " x 9 " " " " 1000.	62 00	9735	$\frac{5}{8}$ " x 9 " " " " 1050.	87 00
9730	$\frac{3}{4}$ " x 6 " " " " 1000.	61 00	9736	$\frac{3}{4}$ " x 6 " " " " 1025.	88 00
9731	$\frac{3}{4}$ " x 9 " " " " 1425.	83 00	9737	$\frac{3}{4}$ " x 9 " " " " 1485.	119 00



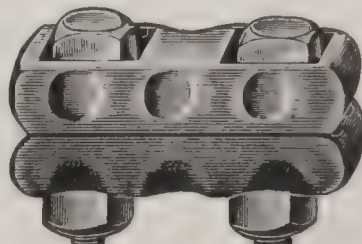
WELDED EYE BOLTS.

List No.	Plain.	Price.	List No.	Galvanized.	Price.
4183	$\frac{1}{2}$ x 10 ins. 80 lbs. per 100	\$ 7 76	13684	$\frac{1}{2}$ x 10 ins. 86 lbs. per 100	\$ 9 40
4184	$\frac{1}{2}$ x 12 " 90 " "	8 48	13685	$\frac{1}{2}$ x 12 " 98 " "	10 16
13680	$\frac{1}{2}$ x 14 " 101 " "	9 02	13686	$\frac{1}{2}$ x 14 " 110 " "	10 92
13681	$\frac{5}{8}$ x 10 " 133 " "	10 54	13687	$\frac{5}{8}$ x 10 " 143 " "	12 58
13682	$\frac{5}{8}$ x 12 " 148 " "	12 30	13688	$\frac{5}{8}$ x 12 " 161 " "	14 72
13683	$\frac{5}{8}$ x 14 " 165 " "	13 90	13689	$\frac{5}{8}$ x 14 " 178 " "	16 62

GALVANIZED GUY CLAMPS.



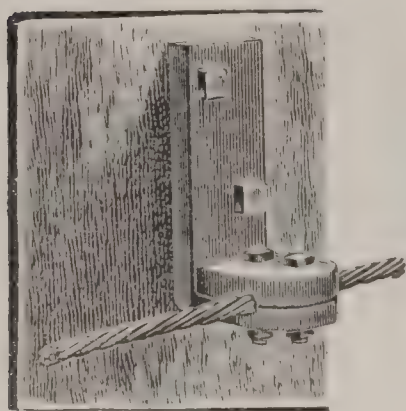
List No. 4058.



List No. 4062.

The cheapest and strongest Clamp on the market for fastening guy wires and cables. Large size is 4 inches long ; small size 3 inches long.

List No.	Price.
4058 Large size, with three Bolts. Per 100 pcs.	\$20 00
4062 Small size, with two Bolts. Per 100 pcs.	11 50



MESSENGER POLE CLAMP.

List No.						Price.
4059	For $\frac{1}{2}$ and $\frac{7}{16}$ -inch Strand, Plain.	Per 100 pes	-----			\$23 62
4060	" $\frac{1}{2}$ " $\frac{7}{16}$ " " Galvanized.	Per 100 pes	-			29 20
4061	" $\frac{3}{8}$ " $\frac{5}{16}$ " " Plain.	Per 100 pes	-----			19 36
13691	" $\frac{3}{8}$ " $\frac{5}{16}$ " " Galvanized.	Per 100 pes	-			23 66
4063	" $\frac{1}{4}$ " $\frac{1}{8}$ " " Plain.	Per 100 pes	-----			16 64
13692	" $\frac{1}{4}$ " $\frac{1}{8}$ " " Galvanized.	Per 100 pes	-			20 24



FETTER DRIVE POLE STEPS.

List No.	Plain.	Price.
13694	$\frac{9}{16}$ x 8 inches. Per 100 pcs	\$2 90
4254	$\frac{9}{16}$ x 9 " " " "	2 94
13695	$\frac{9}{16}$ x 10 " " " "	3 52
13696	$\frac{5}{8}$ x 8 " " " "	3 56
13697	$\frac{5}{8}$ x 9 " " " "	3 78
13698	$\frac{5}{8}$ x 10 " " " "	4 10

List No.		Galvanized.			Price
13699	$\frac{9}{16}$ x 8 inches.	Per 100	pcs	-----	\$3 82
13700	$\frac{9}{16}$ x 9 "	"	"	-----	3 90
13701	$\frac{9}{16}$ x 10 "	"	"	-----	4 88
13702	$\frac{5}{8}$ x 8 "	"	"	-----	4 92
13703	$\frac{5}{8}$ x 9 "	"	"	-----	5 14
13704	$\frac{5}{8}$ x 10 "	"	"	-----	5 56



GALVANIZED WIRE ROPE THIMBLE.

List No.		Price.	List No.		Price.
4195	For $\frac{1}{4}$ -inch Rope.....	\$0 08	4200	For $\frac{5}{8}$ -inch Rope.....	\$0 13
4196	" $\frac{1}{8}$ " "	08	4201	" $\frac{3}{4}$ " "	15
4197	" $\frac{3}{8}$ " "	09	4202	" $\frac{7}{8}$ " "	16
4198	" $\frac{1}{2}$ " "	10	4203	" 1 " "	20
4199	" $\frac{3}{4}$ " "	11			



CUTTER'S ORNAMENTAL POLE STEP.

Fits either round or octagonal poles and looks much better than the ordinary Pole Step. Is easily fastened in place by using a single Lag Screw and a Nail.

List No. 9706.

List No.	Price.
9706 Pole Step	\$0 16



List No. 9708.

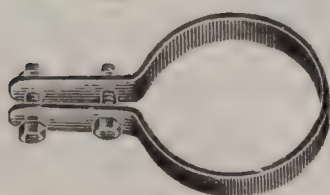


List No. 9707

CUTTER'S REMOVABLE POLE STEPS.

Are much more easily carried than a ladder, as a pair of them weigh less than 14 ounces, and can be slipped into the pocket. Both the Pole Steps and the Sockets for them (which are hooded over so as to be sleet-proof) are made of Malleable Iron.

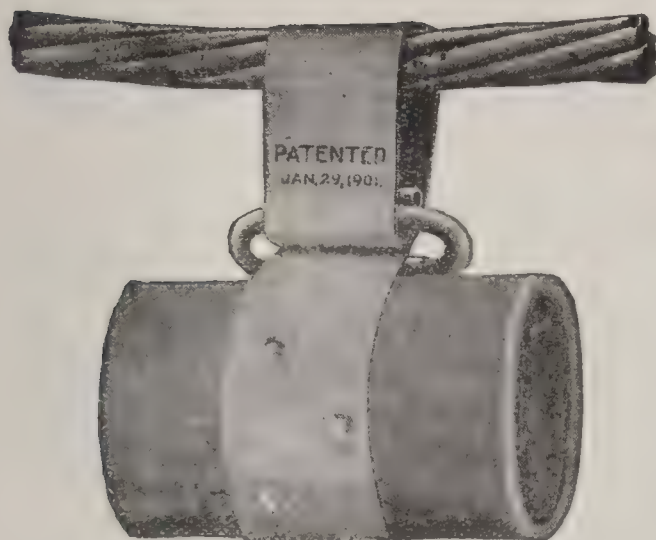
List No.	Price.
9707 Removable Pole Steps only. Per pair.....	\$0 25
9708 Sockets for same. Per dozen	90



POLE CLAMP.

List No.		Price
4050	Single Bolt	\$0 25
4051	Double Bolt	30

CABLE HANGERS.

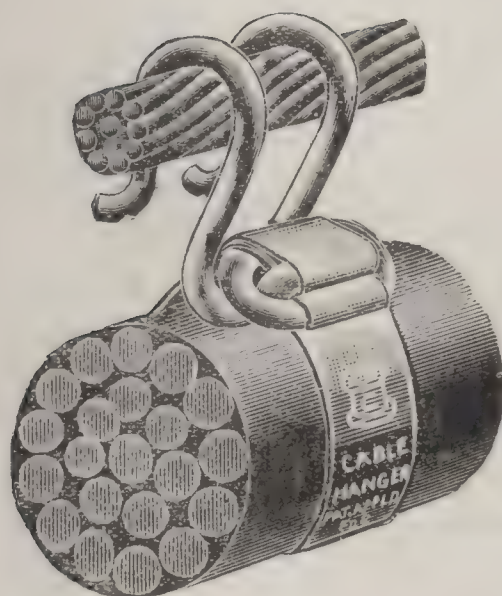


List No. 4052

METROPOLITAN CABLE HANGER.

This type of Clip is much more durable than the old-time Marline and can be installed in much less time.

List No.	Price.
4052 Per 1000.....	\$38 00



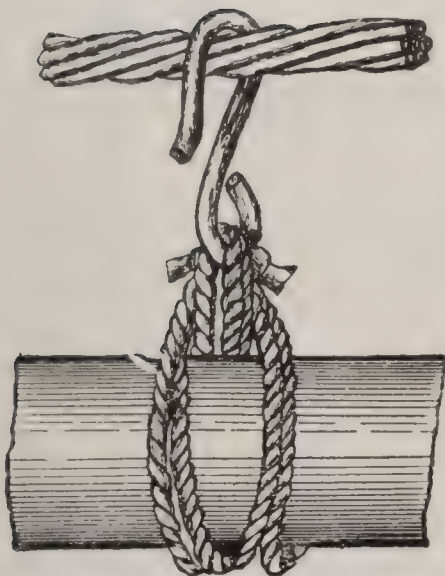
List No. 4054.

THE "HOLD FAST" CABLE HANGER.

Made of Galvanized Steel Wire and Zinc, strip adjustable to any size cable, simple and durable.

The method of using this Clamp is very simple and the heavier the weight, the tighter the Clamp becomes.

List No.	Price.
4054 Per 1000.....	\$38 00



MARLINE CABLE HANGER.

List No.	Price.
13706 Galvanized Steel Wire, with 30-inch long Single Strand Marline for $\frac{3}{4}$ to $1\frac{7}{8}$ inch diameter cable. Per 1000 pcs.....	\$12 00
13707 With 36 inch long Single Strand for $1\frac{1}{2}$ to $2\frac{1}{4}$ inch diameter cable. Per 1000 pcs.....	14 00

THE MILLER GUY ANCHOR.



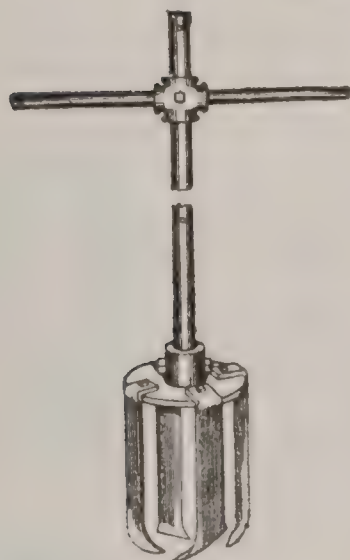
Always be governed by the size of the rods they are fitted with. If a half inch Anchor Rod will stand the strain, set a No. 2 Anchor; if it takes a $\frac{5}{8}$ -inch rod, use a No. 3 Anchor; and so on for all sizes, as the Anchors are guaranteed large enough to break the rods before they will pull up.

ANCHORS WITH RODS.

List No.	Mfrs. No.								Price.
13708	1	Anchor	5 x 10 ins.	$\frac{7}{8}$ -in. Rod,	6 ft. long	-----			\$1 20
13709	2	"	6 x 13 "	$\frac{1}{2}$ "	7 "	-----			1 60
13710	3	"	7 x 15 "	$\frac{5}{8}$ "	7 "	-----			2 50
13711	4	"	8 x 19 "	$\frac{3}{4}$ "	8 "	-----			5 00
13712	5	"	10 x 25 "	1 "	9 "	-----			8 00

FOR HEAVY TELEPHONE CABLE WORK.

13713	6	Anchor	10 x 25 ins.	$1\frac{1}{4}$ -in. Rod,	9 ft. long	-----			12 00
13714	7	"	10 x 30 "	$1\frac{3}{8}$ "	9 "	-----			16 00
13715	7A	"	10 x 30 "	$1\frac{1}{2}$ "	9 "	-----			20 00



AUGERS FOR SETTING ANCHORS.

List No.		Price.
13716	Auger with 7 foot Stem for setting No. 1 Anchor.....	\$5 00
13717	Auger Head only	3 00
13718	Auger with 9 foot stem, will set Nos. 2 and 3 Anchors	6 00
13719	Combination Auger with 9 foot Stem and two Boring Heads, will set Anchors Nos. 2, 3, 4, 5	10 00

THE D. & T. GUY ANCHORS.

DRIVE AND TWIST.

In setting this Anchor, drive in ground with sledge as far as necessary, then twist to the right three complete revolutions. This sets wings at right angles to the rod and the trick is done. A time saver.



List No.	Span of Wings.	Width of Wings.	Length of Shaft.	Diam. of Shaft.	Price.
13720	8-in.	$2\frac{1}{2}$ -in.	5 ft.	$\frac{5}{8}$ -in.	\$2 50
13721	11 "	$2\frac{1}{2}$ "	6 "	$\frac{7}{8}$ "	3 00
13722	12 "	$3\frac{1}{2}$ "	6 "	$\frac{7}{8}$ "	3 50
13723	18 "	$3\frac{1}{2}$ "	6 "	$\frac{7}{8}$ "	5 00

STOMBAUGH GUY ANCHORS.

Made of Cast Iron, plain or galvanized. Can be screwed into the ground like an auger, and in less time than any other device, leaving the ground undisturbed, thereby offering a very large resistance. Round Eye, $2\frac{1}{2}$ inch inside diameter.

WITH FIVE AND ONE-HALF FOOT SQUARE RODS.

List No.		Price.
4155	8 in. Anchor, $1\frac{1}{8}$ in. Rod, weight 30 lbs.....	\$ 7 50
4156	10 " " $1\frac{1}{4}$ " " " 48 "	11 25
4157	12 " " $1\frac{1}{2}$ " " " 78 "	15 00

WITH FIVE-FOOT ROUND RODS.

List No.		Price.
4158	$3\frac{1}{2}$ in. Anchor, $\frac{5}{16}$ Rod, Weight $2\frac{1}{2}$ lbs. Per 100.....	\$70 00
4159	5 " " $\frac{3}{8}$ " " " 4 " " "	115 00
4160	6 " " $\frac{1}{2}$ " " " $7\frac{1}{4}$ " " "	225 00

List No. 4159 and 4160 Anchors have eye 3 inches long by $\frac{1}{2}$ inch spread.

List No. 4158 has no eye.

WITHOUT RODS.

List No.		Price.
4161	$3\frac{1}{2}$ in. Anchor only, weight 1 lb. Per 100.....	\$35 00
4162	5 " " " " $2\frac{1}{2}$ " " "	70 00
4163	6 " " " " $4\frac{1}{2}$ " " "	125 00

WRENCHES.

Wrenches must be used with all Anchors $3\frac{1}{2}$ to 6 inches, with or without rods.

List No.		Price.
4164	Wrenches for $3\frac{1}{2}$ in. Anchor, weight 13 lbs.....	\$2 40
4165	" " 5 " " " 13 "	3 00
4166	" " 6 " " " 15 "	5 10

Galvanizing, $3\frac{1}{2}$ cents per pound net extra.

THE WESTERN POST HOLE DICGER.

Used for setting telephone, telegraph and trolley poles, fence posts, etc.

A great time saver, its action is simple and automatic. Just push down, pull up and let go.

It will work in gravel and handle sticky soil and will hold thin mud and dry sand.

On account of its driving power and ease of handling it will dig through any soil, from slush to gravel, more rapidly than any other digger made.

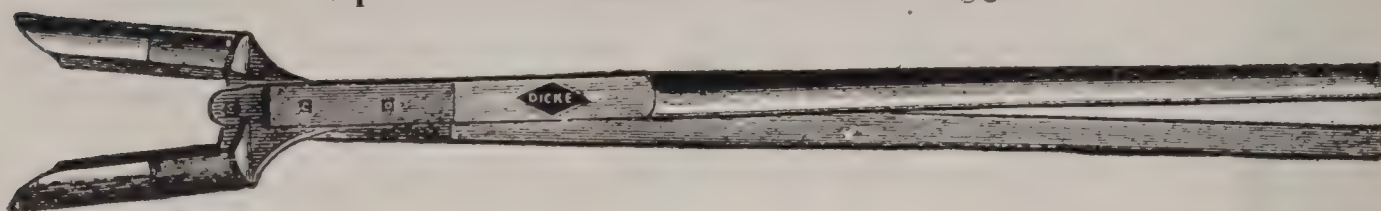
Extra select ash handles, heavy malleable castings.

List No.		Price.
13725	Regular Digger, will dig five-foot hole.....	\$1 35
13726	Special Telephone Digger, will dig seven-foot hole.....	2 00



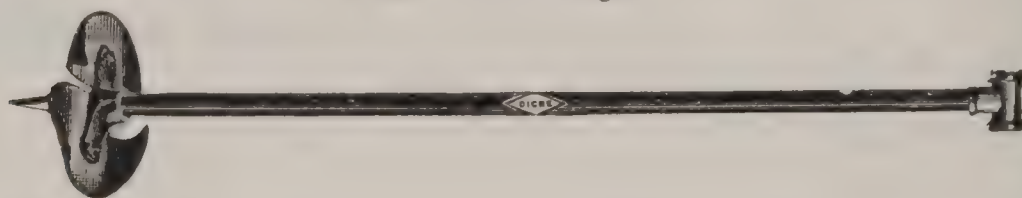
LINE CONSTRUCTION MATERIAL.

Split Wood Handle Post Hole Digger.



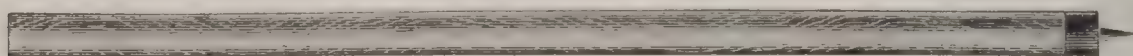
List No.		Price.
9760	Split handle diggers, 5-foot handle.....each,	\$2 00
9761	" " " " " ""	2 50

Post Hole Augers.



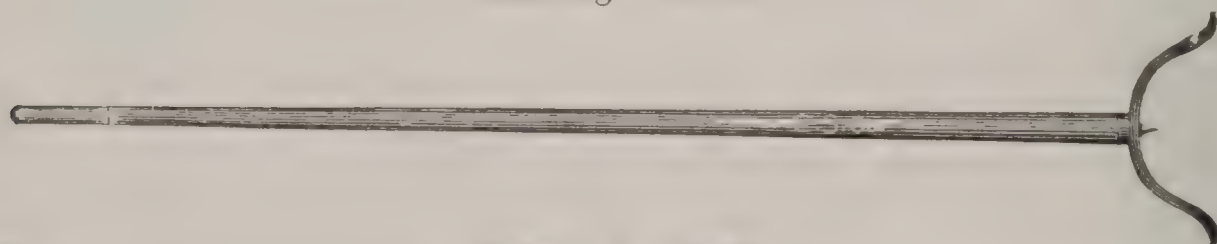
List No.		Price.
4358	To bore 12 inch hole.....	each, \$6 00
9762	" " 14 " ".....	" 7 00

Pike Poles.



List No.		Price.	List No.		Price.
4325	10 feet.....each,	\$2 00	4328	16 feet.....each,	\$2 50
4326	12 "....."	2 25	4329	18 "....."	2 75
4327	14 "....."	2 40	4330	20 "....."	3 00

Raising Fork's.



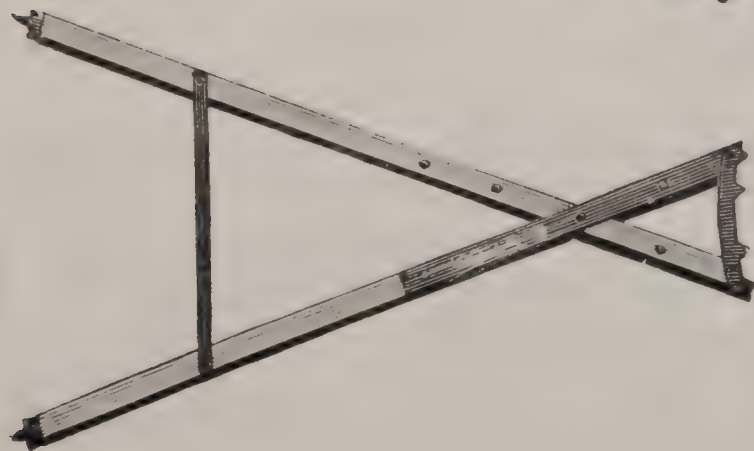
List No.	Price.	List No.	Price.
4333 12 feet.....each,	\$2 75	4336 18 feet.....each,	\$3 20
4334 14 "....."	2 85		
4335 16 "....."	3 00		



Mule Pole Support.

List No.	Price.
9763 6-ft.....each,	\$6 00
9764 7½-ft.....“	7 00

Light and very strong.



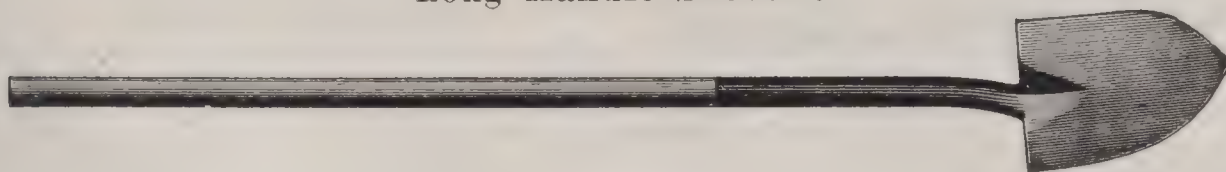
Jenny Pole Support.

List No.	Price.
4350 6-ft.....each,	\$8 00
4351 7½-ft.....“	9 00

Very strong and substantial.

LINE CONSTRUCTION MATERIAL.

Long Handle Shovels.



List No.	Price.	List No.	Price.
9740 7 ft.....each,	\$2 25	9741 8 ft.....each,	\$2 50

Long Handle Spoons.



List No.	Price.	List No.	Price.
9742 7 ft.....each,	\$2 25	4353 8 ft.....each,	\$2 50

These Shovels and Spoons are extra strong and made for hard usage.

Shovel and Spoon Handles.

List No.	Price.	List No.	Price.
9743 Shovel Handles, 8 ft.....per doz.,	\$15 00	9745 Spoon Handles, 8 ft.....per doz.,	\$15 00
9744 " " 7 ft.....	13 50	9746 " " 7 ft.....	13 50

Digging Bars.—Solid Steel.



List No.	Price.
9747 Round, 1 in. diam., 17 lbs.....each,	\$3 00
9748 Round, 1 1/8 inch diam., 8 ft. long, 28 lbs.....	3 75
9749 Octagon, 1 1/8 inch diam., 8 ft. long, 27 lbs.....	4 50

Crow and Digging Bars.



List No.	Price.
9750 Round, 1 in. diam., 7 ft. long 17 lbs.....each,	\$3 00
9751 Octagon, 1 in. diam., 7 ft. long, 17 lbs.....	3 25
9752 Octagon, 1 1/8 in. diam., 8 ft. long, 28 lbs.....	4 50

Tamping and Digging Bars.



List No.	Price.
9755 Octagon, 1 in. diam., 7 ft. long, 19 lbs.....each,	\$3 50
9756 Octagon, 1 1/8 in. diam., 8 ft. long, 30 lbs.....	4 75
9757 Round, 1 in. diam., 7 ft. long, 19 lbs.....	3 25

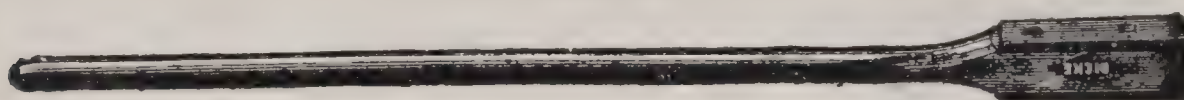
"Slick" Digging Tool.



A very useful tool for digging post holes in clay soil.

List No.	Price.
9758 8 ft. hard wood handle, with steel point.....each,	\$4 00

Wood Tamping Bar.



List No.	Price.
9759 Faced and bound with iron shoe, 7 ft. long.....each,	\$2 60

LINE CONSTRUCTION MATERIAL.



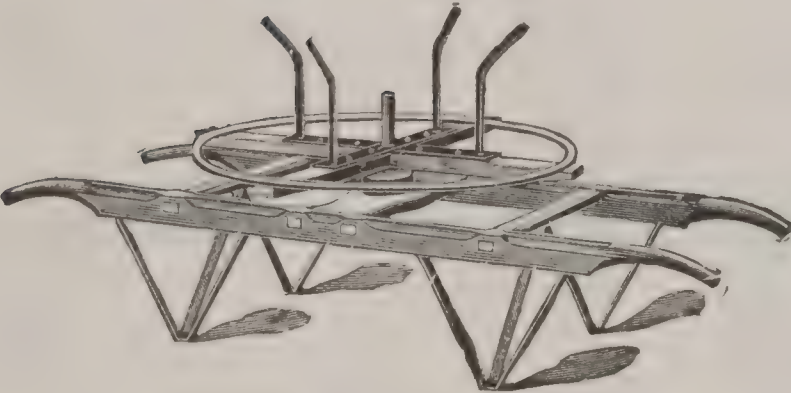
CANT HOOK.

List No.	Price
4322 Length, 4½ feet	\$3 00



CARRYING HOOK.

List No.	Price.
4321 Length of Handle 4 ft. With swivel.	\$3 00



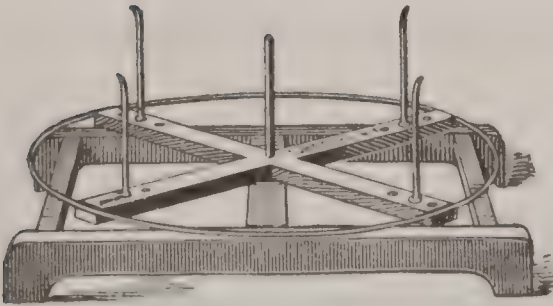
BARROW PAY-OUT REEL.

For Telephone Work.

List No.	Price
4315	\$14 00

For Electric Light Work.

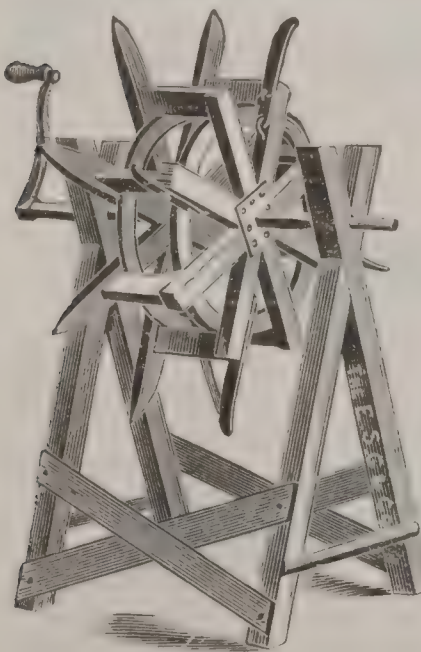
4305	17 50
4307 Leather Shoulder Straps, for use with above. Per set.....	8 00



COMMON PAY-OUT WIRE REEL.

With Guard Irons.

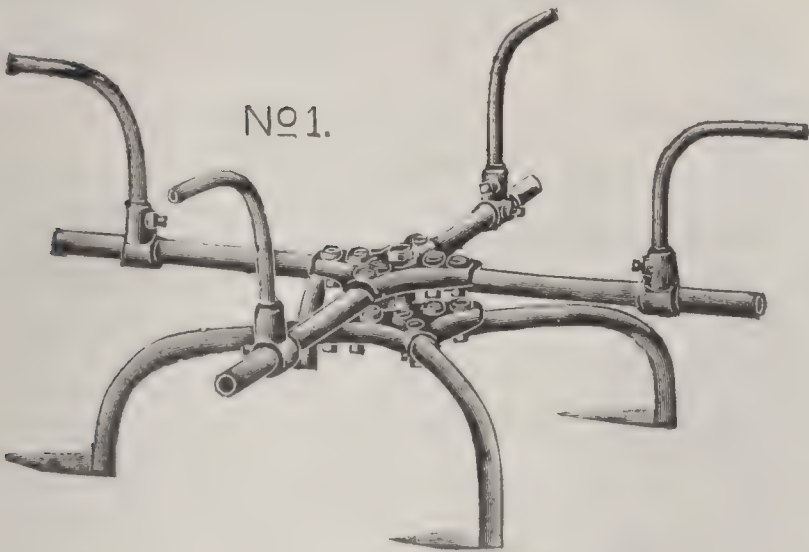
List No.	Price.
4316	\$12 00



IMPROVED TAKE UP REEL.

List No.	Price.
4306 For 18-inch Coil.....	\$20 00
4308 For 21-inch Coil.....	20 00

READY PAY-OUT REELS.



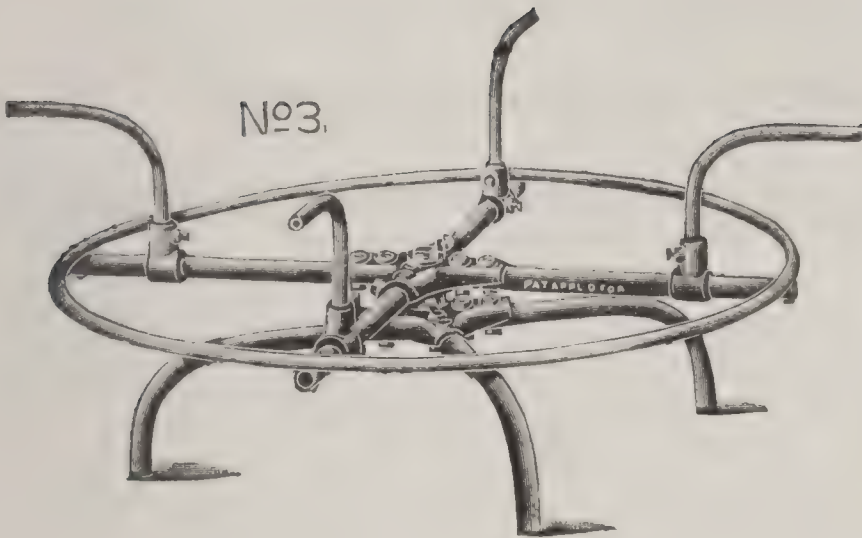
Ready Reels are made entirely of Iron, having interchangeable Parts and Cone Bearings. All styles are adjustable for any sized coil of wire. For telephone use, Reels with Tension are recommended. Reels Nos. 7 and 8 are designed for toll line or drop work.

This Reel is recommended for electric light and street railway companies, where heavy wires are used.

List No.	Mfrs. No.	Price.
4310	1	Each..... \$9 00
Weight 30 lbs.		

Same style as No. 1, with Tension, making it possible to regulate speed at which reel is desired to pay out.

List No.	Mfrs. No.	Price.
4311	2	Each..... \$12 00
Weight 31 lbs.		



This Reel is of same general construction as No. 1 except having addition of band preventing wires from dropping down.

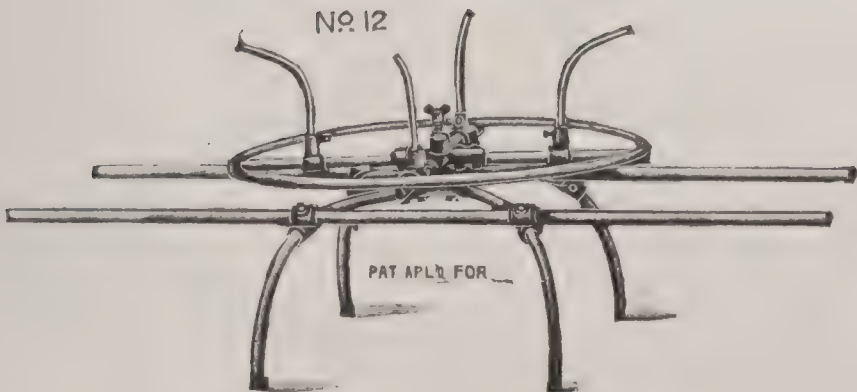
List No.	Mfrs. No.	Price.
4312	3	Each..... \$15 00
Weight 40 lbs.		

In No. 4 all the features of Nos. 1, 2 and 3 are combined, making it an ideal Reel for telephone companies.

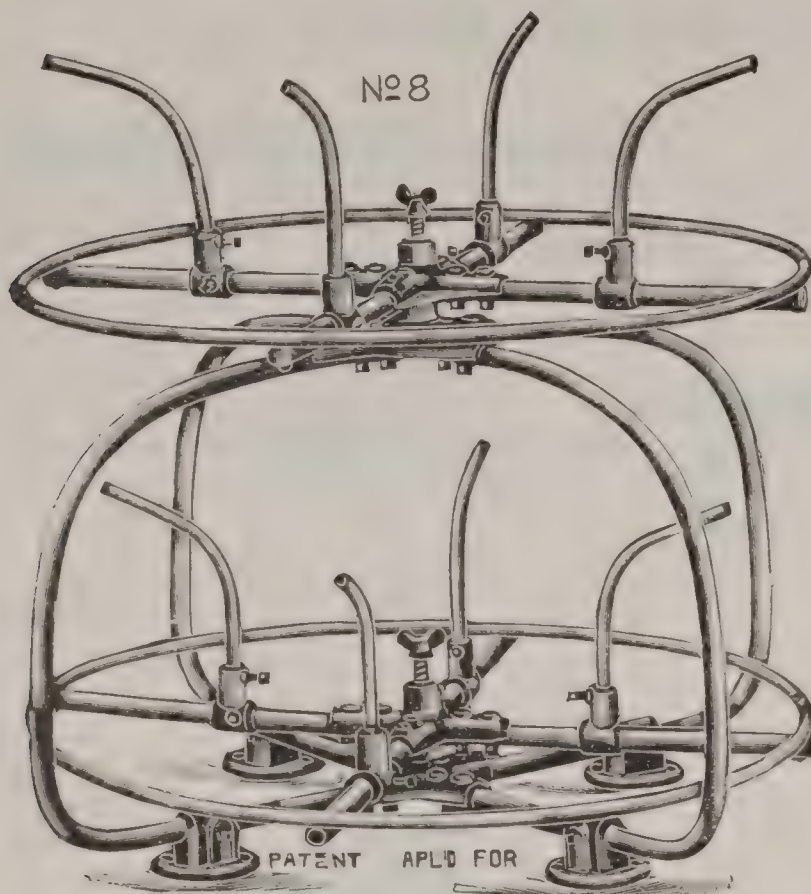
List No.	Mfrs. No.	Price.
4313	4	Each..... \$18 00
Weight 41 lbs.		

READY BARROW PAY-OUT REELS.

Barrow Reels are made in four styles.



List No.	Mfrs. No.	No.	Price.
4370	9	Same style as 1..	\$13 00
4371	10	" " " 2..	16 00
4372	11	" " " 3..	19 00
4373	12	" " " 4..	22 00
Weight 60, 62, 70 and 72 lbs.			



READY TANDEM PAY-OUT REEL.

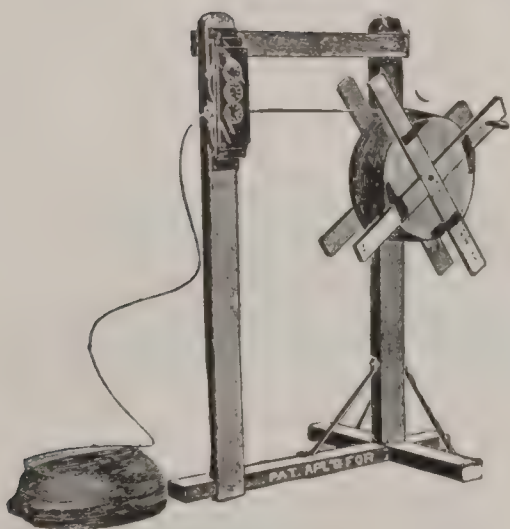
Tandem Reels are made in two styles, Nos. 7 and 8. No. 7 consists of two No. 3 Reels arranged in tandem. No. 8 consists of two No. 4 Reels.

By arranging Reel in this style, a combination for toll line and drop work is effected.

This Reel will set in ordinary three foot wagon bed and is provided with Plates to fasten to place.

List No.	Mfrs. No.	Price.
4420	7 Weight, 98 pounds..	\$34 00
4421	8 Weight, 104 pounds..	40 00

WIRE REEL AND METER.

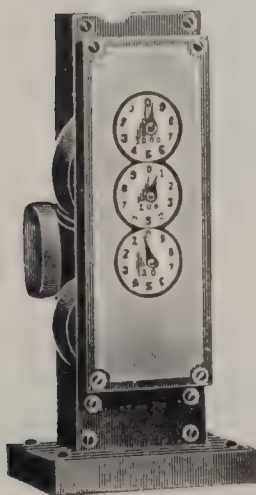


The accompanying cut gives a faint idea of our new Wire Measuring and Reeling Device.

In the meter the wire passes between two self-adjusting rollers, which admit of a wide range, and will measure accurately either large or small wire.

The meter is also made, mounted on a neat base, to be used on a counter where a reel is not needed. For wire factories and dynamo builders the meter alone is invaluable.

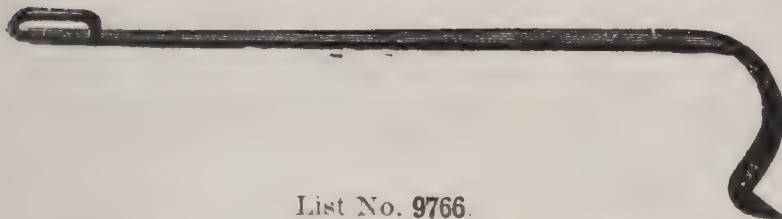
List No.	Price.
4318 With frame and reel complete.....	\$30 00



METER ONLY. Without Reel.

List No.	Price.
4319 Meter only on Base.....	\$18 00

LINE CONSTRUCTION MATERIAL.

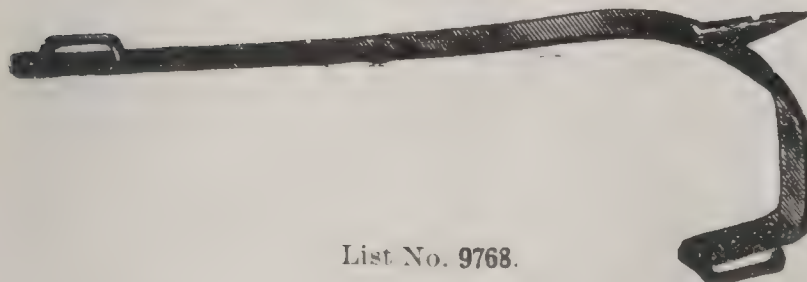


List No. 9766.

Western Climbers.

Lengths from 16 to 18 inches by 1 inch variations.

List No.	Price.
9766 Without Straps.....	per pair, \$3 20
9767 Western Climber Straps..	per set, 1 50

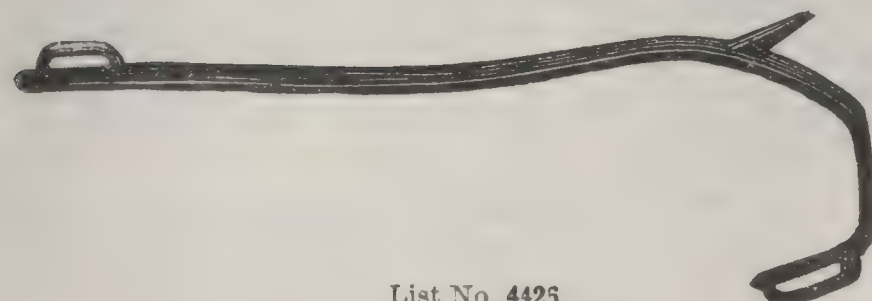


List No. 9768.

Eastern Climbers.

Lengths from 14 to 18 inches by 1/2 inch variations.

List No.	Price.
9768 Without Straps....	per pair, \$4 00
4428 Straps with leather pads,	
4428 per set.....	1 50

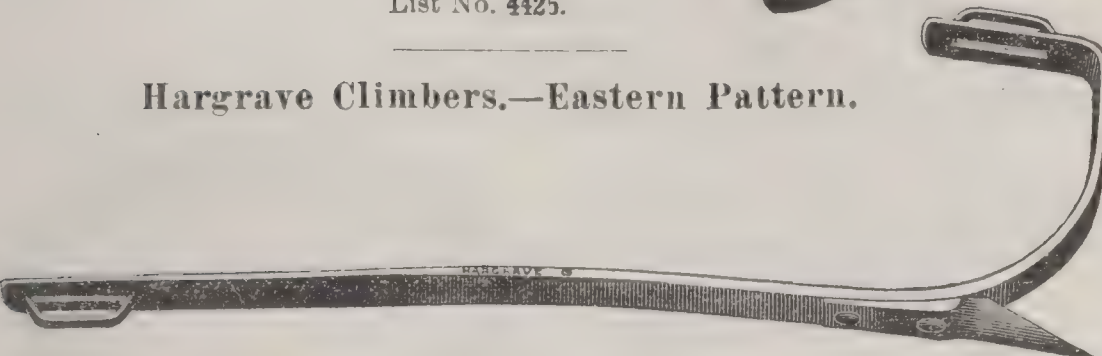


List No. 4425.

Donnelly's Hand-Made Climbers.

List No.	Price.
4426 Without Straps..	per pair, \$3 20
4428 Straps with leather pads	
per set.....	1 50

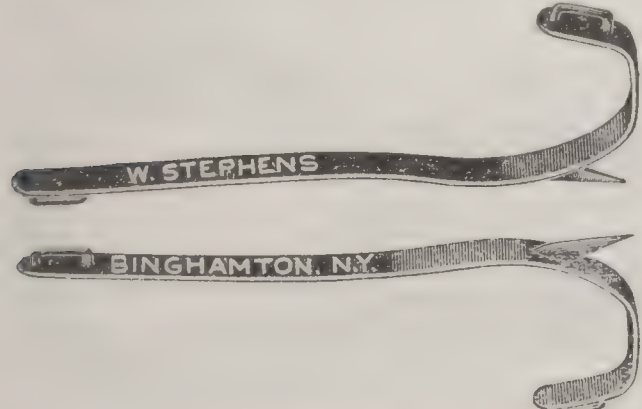
Hargrave Climbers.—Eastern Pattern.



This climber has an interchangeable spur, which can be riveted on by the lineman without heating.

Weight of 17 inch 3 1/2 lbs. per pair.
14 to 18 in. lengths.

List No.	Price.
4424 Without Straps.....	per pair, \$3 20
4425 Extra Spurs.....	each, 1 00
4428 Straps with leather pads.....	per set, 1 50
4438 Straps, no pads.....	per set 1 40



Stephen's Special Hand-Made Climbers.

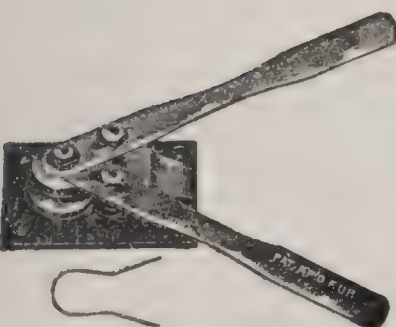
The Stephen's Climber has an enviable reputation among linemen who have used them. They are made by hand from carefully selected materials and heavily galvanized. Every Climber is guaranteed.

List No.	Price.
9770 Without Straps.....	per pair, \$4 00
4428 Straps with leather pads.....	per set, 1 50

“Only” Tie Wire Former.

Will save time, money, and a vast amount of vexation and annoyance. No telephone or telegraph company should be without it. Order one and be convinced.

Made in two sizes : Pony and Standard.

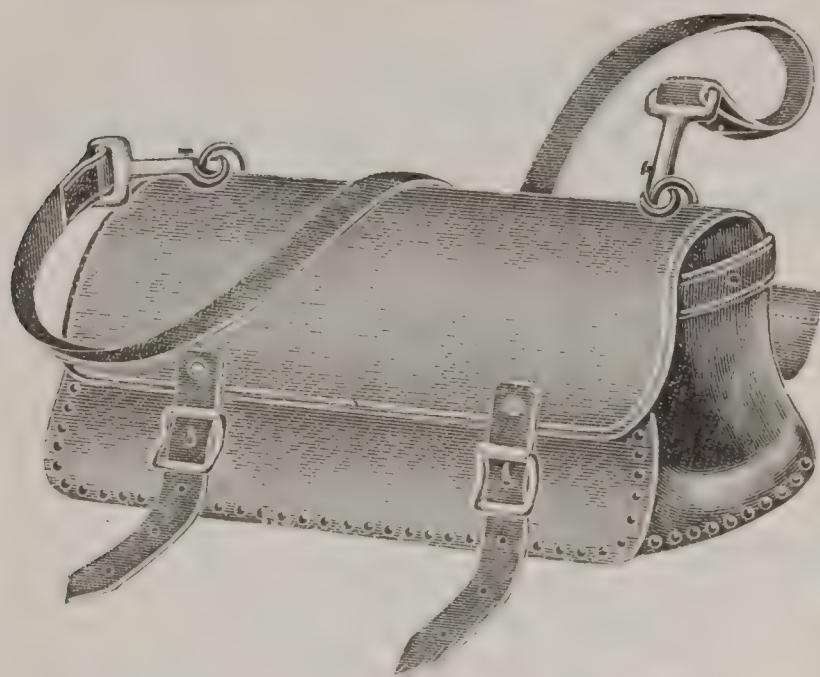


List No. 9765.

List No.	Price.
9765 Tie Wire Former, Standard.....	each, \$5 00
9779 “ “ “ Pony.....	“ 5 00

TOOL BAGS.

Inspectors Leather Tool Bag.



List No.	List No. 4440.	Price.
4440	Each.....	\$4 00

Black Leather Tool Bag.



List No. 4441.

List No.	Price.
4441	With shoulder strap.....\$3 50
4442	“ leather handle..... 3 00

TOOL BELTS, STRAPS, ETC.



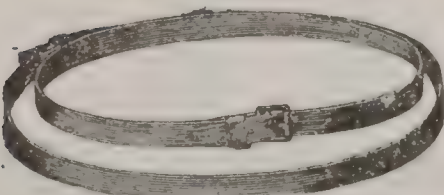
List No. 9773.



List No. 4443.



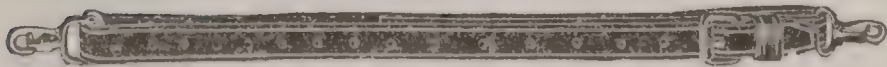
List No. 9774.



List No. 9778.



List No. 9775.



List No. 9777.

List No.	Price.
9773	Leather plier pocket to slip on tool belt.....each, \$0 50
4443	Plain tool belt.....“ 1 50
9774	Belt with rings for safety strap.....“ 1 90
9775	Belt with 1 1/2 inch safety strap.....“ 4 20
9776	Safety strap only, 1 3/4 inch wide.....“ 2 30
9777	Combined safety and jack or vise strap.....“ 2 70
9778	Body Belt.....“ 2 30

When ordering belts specify either 38, 40 or 44 inch size.

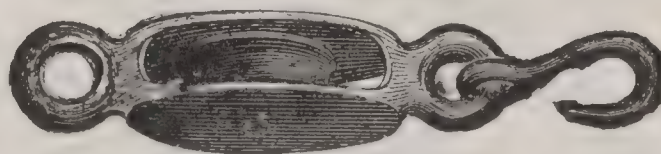
WITH ONE EYE.



WITH TWO EYES.



WITH HOOK.



WITH HOOK AND EYE.

WITH HOOK.		WITH HOOK AND EYE.		Price
List No.				Per Doz.
4273	Single sheave, with one eye,	2 1/4 inch shell, for 3/8 inch rope.		\$2 75
4274	" " " " " "	2 1/2 " " " "		4 00
4281	" " " " two "	2 1/4 " " " "		2 75
4282	" " " " " "	2 1/2 " " " "		4 00
4289	" " " " hook,	2 1/4 " " " "		4 50
4290	" " " " " "	2 1/2 " " " "		6 00
4297	" " " " " and eye,	2 1/4 " " " "		4 50
4298	" " " " " "	2 1/2 " " " "		6 00
4277	Double " " " one eye,	2 1/4 " " " "		3 50
4278	" " " " " "	2 1/2 " " " "		5 00
4285	" " " " two "	2 1/4 " " " "		4 00
4286	" " " " " "	2 1/2 " " " "		5 50
4293	" " " " hook,	2 1/4 " " " "		5 50
4294	" " " " " "	2 1/2 " " " "		7 50
4301	" " " " " and eye,	2 1/4 " " " "		6 00
4302	" " " " " "	2 1/2 " " " "		8 00

List No.		Price.
9780	Brass, without rope, 2¼ inch shell.....per pair,	\$7 00
9781	Galvanized iron, without rope, 2¼ inch shell.....“	4 00

M. KLEIN & SON

These are the best grade of wood blocks with steel eccentrics.

These are the best grade of wood blocks with steel eccentrics.

List No.		Price.
9782	4 inch blocks, complete, without rope, for No. 9 wire.....per pair,	\$7 00
9783	5 " " " " " "	10 00

The 4 inch block requires $\frac{1}{2}$ inch rope.

The 5 inch block requires $\frac{5}{8}$ inch rope.

SOLID STEEL LINEMEN'S VISES.



Improved Linemen's Vise.

List No.	Price.
4451 5½ inch, with loop.....each,	\$2 20

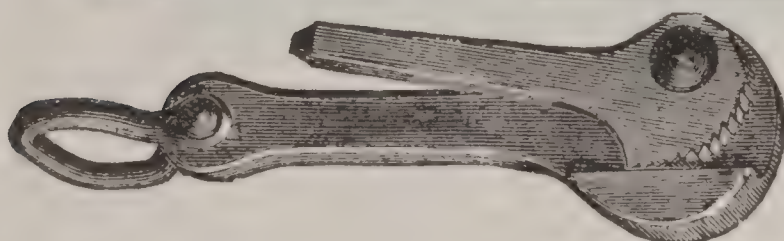
STUB'S LINEMEN'S VISES.

List No.		Price.
4454	5½ inch, with loop.....each,	\$4 75
4457	6 " " " "	6 35



"COME ALONG" CLAMPS.

List No.		Price.
4460	"Come Along," for wire up to No. 8.....each,	\$1 00
4461	" " " " " 6..... "	2 00
4462	" " " " " 000..... "	2 50
4463	Straps for "Come Along" Eccentric Clamps..	1 00

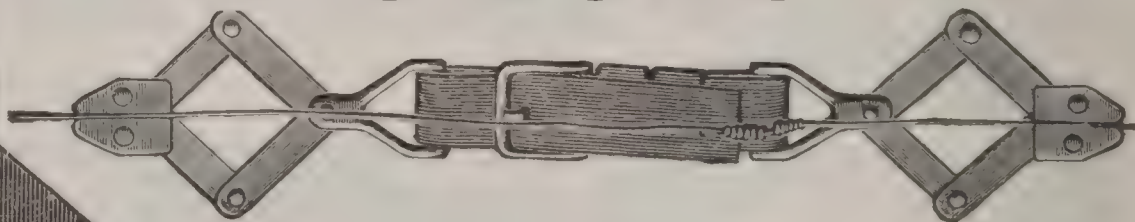
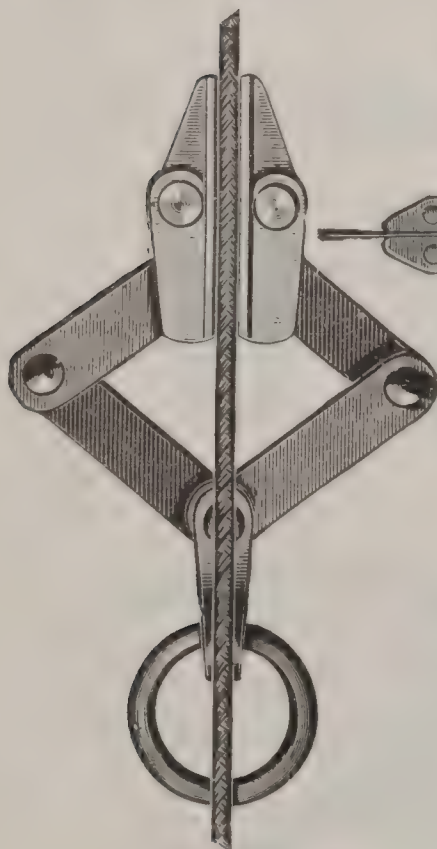


ECCENTRIC CLAMP.

Made from best Crucible Steel.

List No.	Price.
4468 Eccentric Clamps.....each,	\$1 25

IMPROVED PARALLEL WIRE STRETCHERS.



List No. 4496.

List No.	Price.
4496 Arranged for strap, carries any size wire up to No. 8, without strap.....each,	\$3 60
4497 Arranged for hook, carries any size wire up to No. 000, "	4 20
4498 " " strap, " " " " (000), without strap....."	4 20

List No. 4497.

STRAPS FOR VISES, CLAMPS AND STRETCHERS.



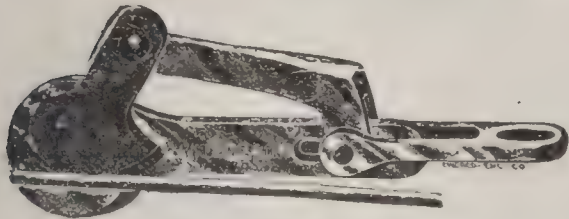
List No.	Price.
4459 Straps for vises and clamps.....	each, \$1 25

WIRE CLAMPS.



Landee's Clamp.

List No.	Price.
4473 Malleable iron, for No. 8 and finer,	\$2.50



Klein's Clamp, Style A.

List No.	Price.
9785 Brass, for No. 8 and finer wire.....	\$3.00
9786 Steel, " " 1/2 inch and finer...	5.50



Havens Steel Clamp.

List No.	Price.
4465 For size 8 wire and finer.....	\$3.00
4466 " " 1/2 inch wire and finer....	5.50

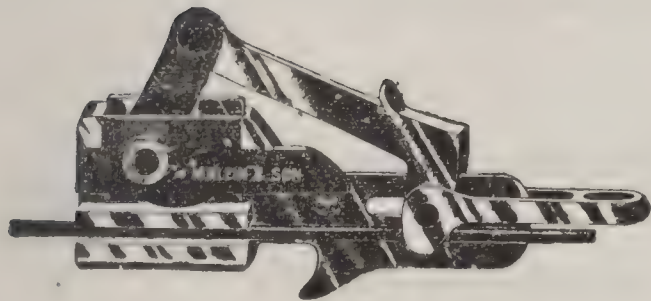
This is a very efficient clamp for all
around work.



Klein's Clamp, Style B.

FOR HARD DRAWN COPPER WIRE.

List No.	Price.
4474 For No. 6 wire and finer.....	\$4.10



Klein's Clamp, Style C.

FOR BARE COPPER WIRE.

List No.	Price.
4475 For No. 4 wire and finer....	\$5.50
4476 " " 4 to 0 wire.....	10.00
4478 " " 0 to 4/o wire.....	12.00

In styles B and C clamp the wire is
held between two flat brass jaws, which
open and close automatically. They are
guaranteed to hold the wire without
bruising or kinking it.

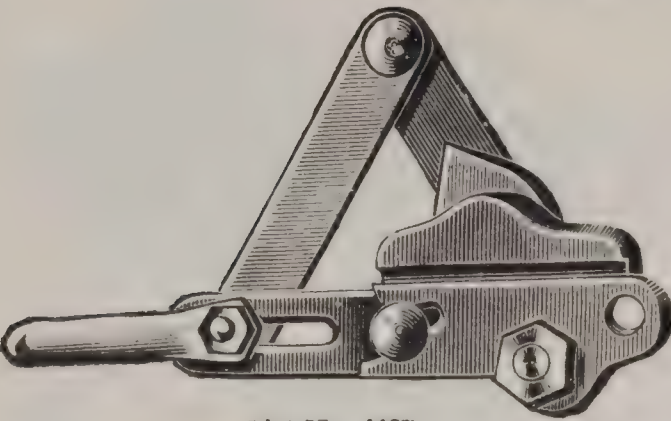
Parallel Screw Clamp.

FOR TROLLEY WIRE.



List No.	Price.
4477 Grooved for Nos. 0 and 00,	\$3.60
9787 " " " 00 " 000,	4.10
9788 " " " 000 " 0000,	5.50
9789 " " " 00 fig. 8,	5.50
4445 " " " 000 " 8,	5.50
4446 " " " 0000 " 8,	5.50

WIRE CLAMPS.



List No. 4467.

The Westfield Grip.

Made from the best crucible cast steel.
Carries any size wire up to No. 4.

List No.	Price.
4467 Each.....	\$3 00



List No. 4480.

Buffalo Grip.

The Buffalo Grip is the most popular tool of its class ever placed on the market. It will instantaneously grip the wire and will not drop off. It will not slip under the severest tension, and will not injure the softest wire.

List No.	Price each.
4480 (No. 1) 1/4 in. open'g, No. 6 wire and under...	\$5 00
4481 (No. 2) 3/8 " " No. 0 " " ...	8 00
4482 (No. 3) 3/4 " " No. 0000 " " ...	12 00

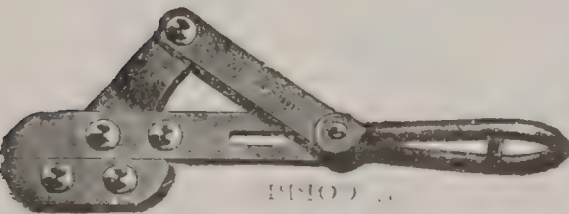


List No. 4483.

Buffalo Grip with Pulleys.

Made for heavy work and very strong, takes 3/8 in. rope.

List No.	Price each.
4483 (No. 1) 1/4 in. open'g, No. 6 wire and under...	\$6 00
4484 (No. 2) 3/8 " " No. 0 " " ...	9 00
4485 (No. 3) 3/4 " " No. 0000 " " ...	13 00



List No. 4486.

Buffalo Grip for Insulated Wire.

List No.	Price.
4486 (No. 4) 1/4 inch opening.....each,	\$8 00
4487 (No. 5) 3/8 " " " " " "	10 00

Pulleys with this Grip 50 cents additional.



List No. 4490.

The Buffalo Lineman's Tool.

List No.	Price.
4490 Lineman's Tool, with No. 1 Grip.....each,	\$10 00
4491 " " " No. 2 " " " "	13 00
4447 " " " No. 4 " " " "	13 00



Howe
Improved
Wire Tool.

Can be fitted with
any wire pulling
tool.

For pulling up and holding line and guy wires, the use of rolls gives several times the power of the old methods; the grip is self-adjusting, and will hold in any position, at any point of the strap; the hook adds greatly to the advantages of the whole tool.

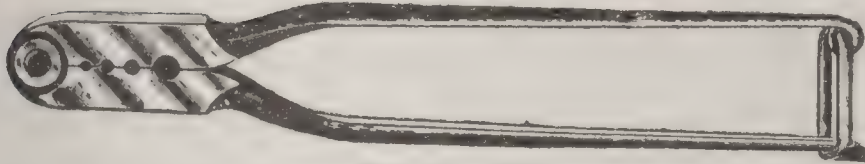
List No.	Price.
4492 Single purchase without vise and strap.....each,	\$6 50
4493 " " with 5 1/2 inch vise and strap.....	7 50
4494 Double " without vise and strap.....	7 75
4495 " " with 5 1/2 inch vise and strap.....	9 00

SPLICING CLAMPS.



List No. 4588.

List No. Price.
4588 Each.....\$3 20
 for Nos. 4, 6, 8 and 9
 B. & S. wire.



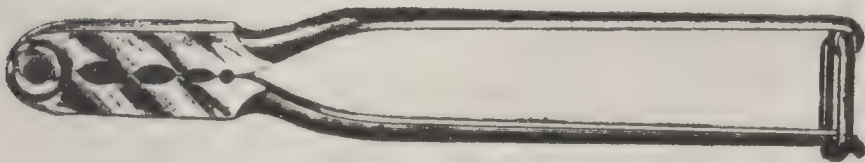
List No. 4589.

List No. Price.
4589 Each.....\$3 20
 for Nos. 8, 10, 12 and 14
 B. & S. wire.



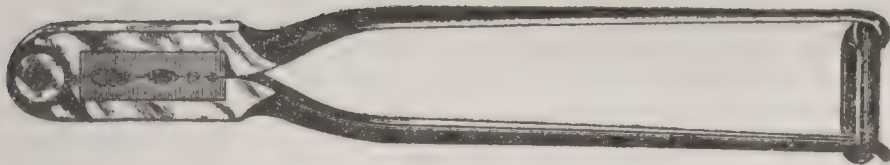
List No. 9792.

List No. Price.
9792 Each.....\$3 40
 for Nos. 6, 8, 10, 12 and 14
 B. & S. wire.



List No. 4590.

List No. Price.
4590 Each.....\$3 20
 for Nos. 2, 4, 6 and 8
 B. & S. wire.



List No. 9793.

List No. Price.
9793 Each.....\$4 50
 Copper jaws for Nos. 3, 4, 9
 and 12 B. & S. copper wire.



List No. 9794.

List No. Price.
9794 Each.....\$4 50
 Copper jaws for Nos. 5 to 12
 copper wire.



List No. 9795.

List No. Price.
9795 Each.....\$3 40
 for Nos. 0, 2 and 4 wire.



List No. 4592.

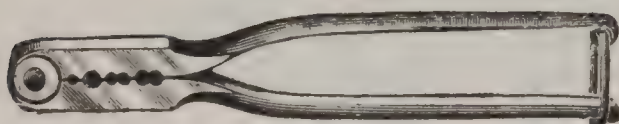
List No. Price.
4592 Each.....\$3 20
 for McIntire sleeves Nos. 8
 10, 12 and 14 B. & S.
 gauge.

SPLICING CLAMPS.



No. 9796.

List No.	Price.
9796 "Baby" pattern.....each.	\$2 70
for Nos. 12, 14 and 16 wire, length 7 inches.	



No. 9797.

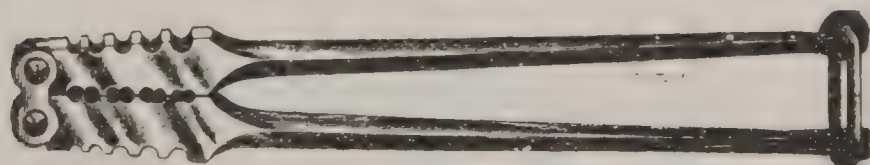
List No.	Price.
9797 "Baby" pattern.....each,	\$3 00
for Nos. 12 and 14 wire and 10 and 12 sleeves, length 7 inches.	



No. 9798.

List No.	Price.
9798 "Baby" pattern.....each,	\$2 70
for Nos. 10 and 12 McIntire sleeves, length 7 inches.	

COMBINATION WIRE AND SLEEVE CLAMPS.



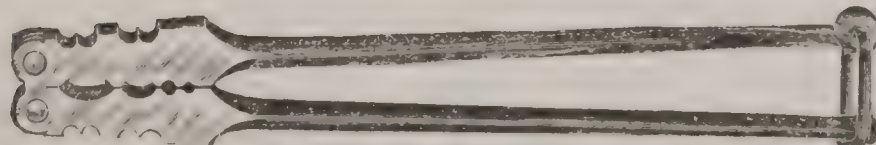
No. 9799.

List No.	Price
9799 Each.....	\$3 60
5 holes for Nos. 6, 8, 10, 12, 14 wire and 8, 10, 12 and 14 sleeves, length 10½ inches.	



No. 9800.

List No.	Price.
9800 Each.....	\$3 30
4 holes for Nos. 8, 10, 12, 14 wire and 10, 12, 14 sleeves, length 9 inches.	



No. 9801.

List No.	Price.
9801 Each.....	\$3 60
for Nos. 4, 6, 8 and 9 wire and 8 and 10 sleeves, length 10½ inches.	

NOTE:—All Splicing Tools are made for B. & S. gauge wire and B. & S. gauge McIntire sleeves. For the American (Fuse Co's) sleeve, the holes in the clamps and wrenches must be larger than for the McIntire sleeve and if the tools are to be used on American sleeve the order should state this.

STEEL SPLICING WRENCH.



No. 4594.

These wrenches are accurately fitted for the respective wires and will make a tight, clean splice. They are intended for use with the splicing clamp.

The ends of the wires to be connected are held with the splicing clamp and the projecting end is

List No.		Price.
4594	For No. 4 and 6 B. & S. wire.....each,	\$1 70
4595	“ 8 “ 9 “ “	“ 1 70
4596	“ 10 “ 12 “ “	“ 1 70

STEEL WRENCHES.

Steel Tie Wire Wrench.



List No. 4593.

The purpose of this tool is to wrap the tie wire around the line wire, where it is fastened to the insulator. It will wind the tie wire around the line smoothly without marring same.

List No.	Price.
4593 Each.....	\$1.60

Combination Tie Wire, Sleeve and Splicing Wrench.



List No. 9804.

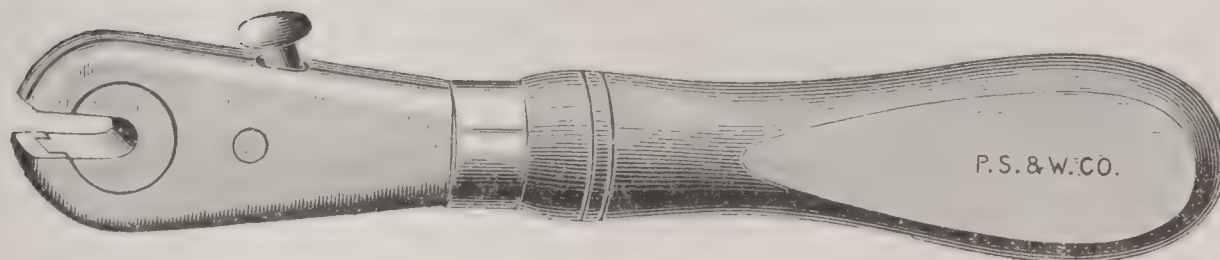
Combination tie wire, sleeve and splicing wrench W. U style for 8 & 10 sleeve.

These wrenches are intended for use in connection with the splicing clamp.

The ends of the wires to be connected are held with the splicing clamp and the projecting ends is caught with the shoulder of the wrench and by turning the wrench around continuously it will coil the wire tightly and evenly on the line wire making a clean, tight splice

List No.	Price
9804 Each.....	\$2.50

Ratchet Sleeve Wrench.



List No. 4586.

Lineman's Ratchet Sleeve Wrench.

This little patented tool is of great merit. It is used for twisting and connecting wires, and is a constant pocket companion of electricians.

List No.	Price.
4586 Lineman's ratchet sleeve wrench, per dozen.	\$13.50

Improved Lag Screw Wrench.



List No. 9805.

Has a tapering slot, allowing it to take any ordinary size of lag screw. Provided with hook to hang on tool belt. The best lag wrench made.

List No.	Price.
9805 Each	\$1.60

Combination Lag Screw and Nut Wrench.

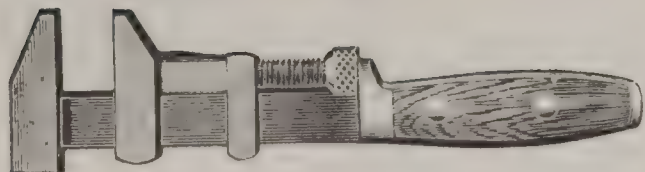


List No. 9806.

Will take $\frac{3}{8}$, $\frac{1}{2}$ and $\frac{5}{8}$ inch lag screws and nuts for $\frac{3}{8}$, $\frac{1}{2}$ and $\frac{5}{8}$ inch bolts.

List No.	Price.
9806 Each.....	\$2.50

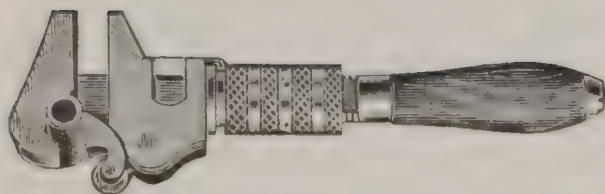
TOOLS.



SOLID HANDLE WRENCH.

The entire Bar of this Wrench is a Solid Steel Forging of one piece.

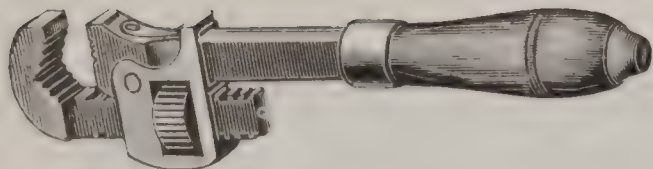
List No.		Price Per doz.
4500	6 inches long, $\frac{7}{8}$ inch opening ...	\$ 9 00
4501	8 " " " $1\frac{1}{4}$ " " " ...	10 00
4502	10 " " " $1\frac{3}{4}$ " " " ...	12 00



COMBINATION PIPE AND MONKEY WRENCH, AND PIPE CUTTER.

This Wrench has a Toggle Jaw which insures a positive and instant grip, and it will instantly release without wedging on the pipe. By removing Pin and reversing Jaw it makes a first-class Pipe Cutter; by throwing the Toggle up at right angle with Wrench, pipe can be lifted out of the V without running the Jaw back, thus making a great time saver. Black finish.

List No.		Price.
9808	10-inch. For $\frac{1}{4}$ to 1 inch Pipe....	\$2 20
9809	12 " " " $\frac{1}{2}$ " $1\frac{3}{4}$ " " "	2 50
9810	15 " " " $\frac{1}{2}$ " $2\frac{1}{4}$ " " "	3 40



STILLSON PIPE WRENCH.

List No.		Price.
4507	6-inch	\$2 00
4508	8 "	2 00
4509	10 "	2 25



SELF-ADJUSTING PIPE WRENCH.

Forged from the best of Tool Steel and of two parts only, Head and Handle. Grasps and lets go instantly. Thus saving one-fourth the time and labor used in adjusting old style Wrenches.

List No.		Price.
4552	10-inch. For $\frac{1}{2}$ inch Pipe and less	\$1 20
4553	14 " " $1\frac{1}{2}$ inch Pipe and less	2 00
4554	18 " " 2 to $\frac{1}{2}$ inch Pipe....	3 00
4555	28 " " 3 to 1 inch Pipe....	4 00

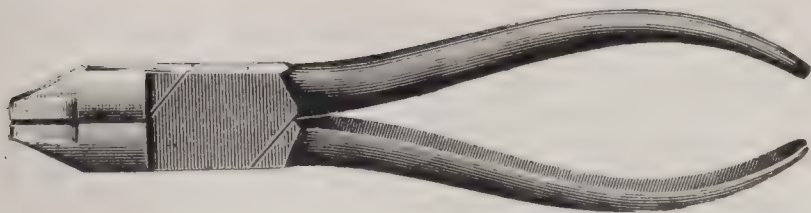
ELGIN ADJUSTABLE WRENCH.



Will hold pipe, nipples, collars, rods, square, hexagon or round nuts. Designed for electricians, engineers, gas fitters, in fact anyone wanting a handy Wrench. Length, 7 inches. Weight, 10 ounces.

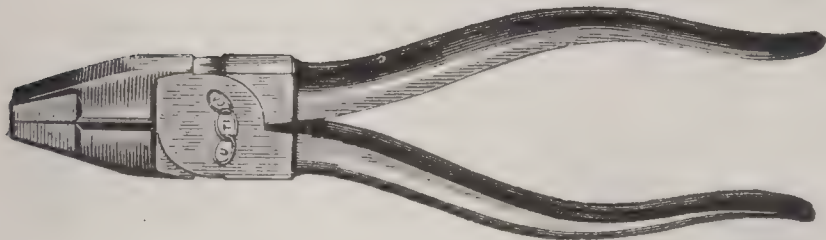
List No.		Price.
4515	Elgin Adjustable Wrench	\$1 00
4516	Extra Jaw	25

LINEMEN'S TOOLS.



STUBBS SIDE CUTTING PLIERS.

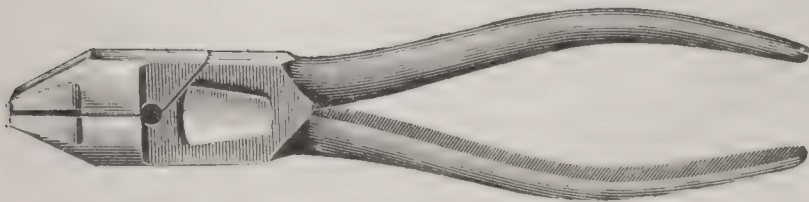
List No.		Price.
4520	4½-inch	\$1 50
4521	5 "	1 50
4522	6 "	1 70
4523	7 "	2 70
4524	8 "	3 50



STEEL SIDE CUTTING PLIERS.

Forged from Tool Steel and carefully tested. Box Joint Raised Cutters.

List No.		Price.
4525	5-inch. Plain	\$1 00
4526	6 " "	1 20
4527	7 " "	1 50
4528	8 " "	2 00
4529	5 " Nickel-Plated	1 40
4530	6 " "	1 60
4531	7 " "	1 90
4532	8 " "	2 40



FRY'S PATENT PLIERS.

List No.		Price.
4533	8-inch. Plain	\$2 25

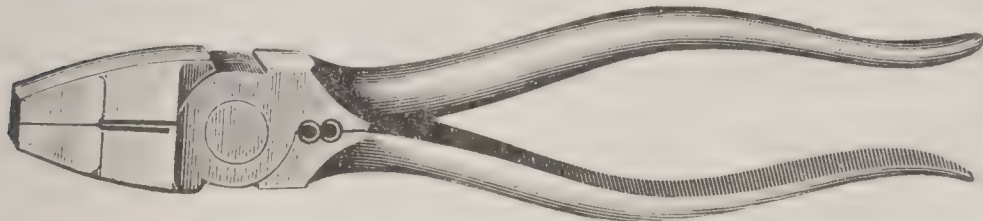


SAMSON CANNON BALL SIDE CUTTING PLIERS.

These Pliers have been designed especially for cutting heavy wires and cables. The Circular Throat being three-quarter inch in diameter will admit anything up to 1-0 wire cable without

injury to the insulation. They will cut one-third easier than any other Pliers made.

List No.		Price.
9812	9-inch. Polished Head	\$4 00



ROUND JOINT SIDE CUTTING AND SPLICING PLIERS.

Best Tool Steel.

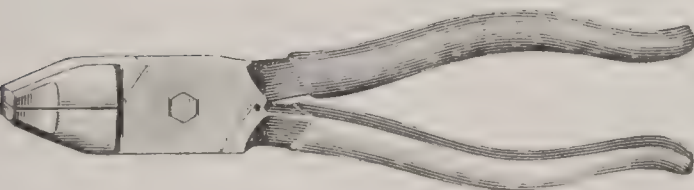
List No.		Price.	List No.		Price.	List No.		Price.
9813	6 in. Black finish	\$1 30	9378	6 in. Polished	\$1 40	9385	6 in. Nickel-Pltd.	\$1 55
9814	7 " "	1 60	9379	7 " "	1 75	9398	7 " "	1 90
9815	8 " "	1 90	9384	8 " "	2 05	9399	8 " "	2 20



COMBINATION FLAT NOSE GAS PIPE SIDE CUTTING PLIERS.

Forged from Tool Steel and carefully tempered. Combines six tools in one.

List No.		Price.
9816	7-inch. Polished Jaw	\$1 50
9817	7-inch. Full polished	1 70



INSULATED SIDE CUTTING PLIERS.

Patent Safety Insulation. Box Joint. They are tested to Insulate against 2500 Volts.

List No.		Price.
4542	6-inch	\$2 10
4543	7 "	2 75
4544	8 "	3 35

LINEMEN'S TOOLS.



END CUTTING NIPPERS.

Tool Steel.

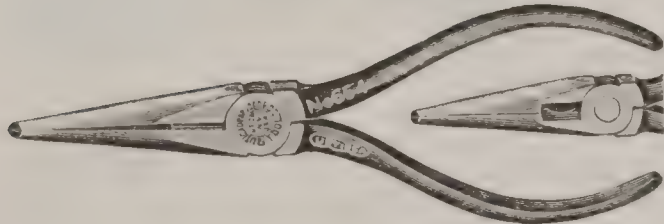
List No.		Price.
4549	5½-inch. Black.....	\$0 75
9826	5½-inch. Nickel-Plated	1 25



SIDE CUTTING NIPPERS.

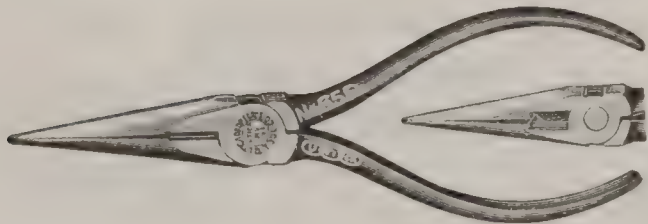
Bright Face, Hand Forged.

List No.		Price.
4536	4 -inch. Black.....	\$0 65
4537	4½ " " ".....	70
4538	5 " " ".....	80



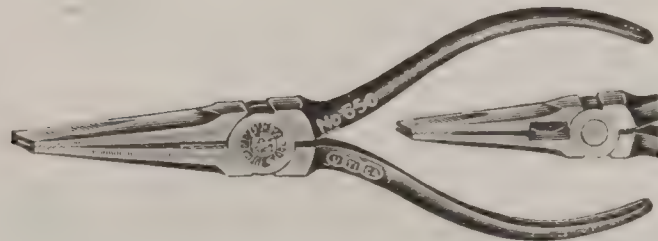
LONG CHAIN NOSE, SIDE CUTTING PLIERS.

List No.		Price.
4545	5½-inch. Black.....	\$1 25
9821	5½-inch. Nickel-Plated	1 75



LONG NOSE, NEEDLE POINT, SIDE CUTTING PLIERS.

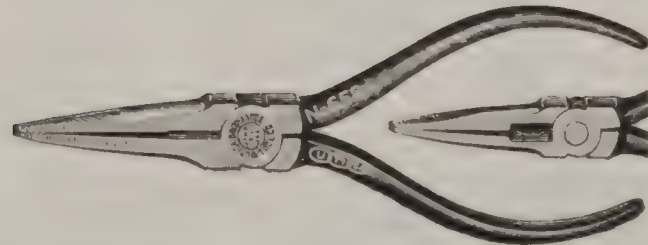
List No.		Price.
4556	5½-inch. Black.....	\$1 40
4557	5½-inch. Nickel-Plated	1 75



LONG REACH, FLAT NOSE, SIDE CUTTING PLIERS.

Especially useful for telephone and switch board builders.

List No.		Price.
4558	5½-inch. Black.....	\$1 25
4559	5½-inch. Polished Jaws.....	1 70



LONG SQUARE REAMER NOSE AND SIDE CUTTING PLIERS.

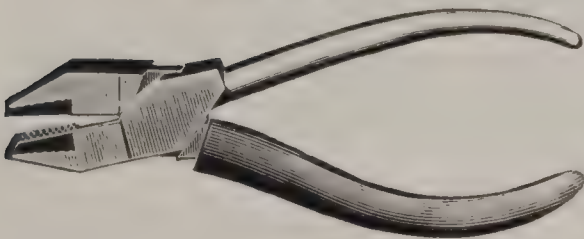
Can be used as a Side Cutter, Flat Nose or Reaming Pliers. The Edges being perfectly square and tempered, will cut like a Reamer.

List No.		Price.
9824	5½-inch. Black.....	\$1 50
9825	5½-inch. Nickel-Plated	1 90



SOFT RUBBER PLIERS HANDLES.

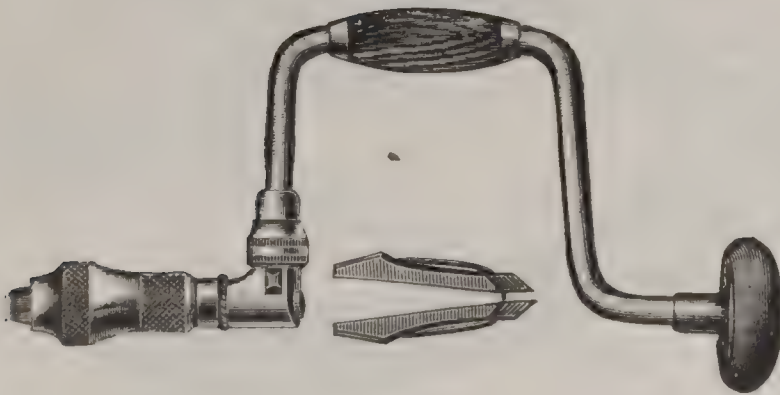
Readily slipped on the handles; gives a safe and durable insulation; also gives the hand a better grip on the handles.



List No.		Price Per pair.
9818	Handles only, for 6-inch pliers.....	\$0 25
9819	" " " 7 " ".....	30
9820	" " " 8 " ".....	40

TOOLS.

IMPROVED RATCHET BRACE.



Best grade, plain polished, Forged Steel Jaw and Sockets milled to fit. Head and Handle, Ebonized Hardwood.

List No.		Price.
4652	8-inch Sweep.....	\$2 70
4651	10 " "	3 00
4650	12 " "	3 25

PLAIN BIT BRACE.



Steel Sweep, polished bright, Hardwood Head and Handle.

List No.		Price.
4656	8-inch Sweep.....	\$2 00
4655	10 " "	2 25
4654	12 " "	2 50

CORNER BIT BRACE.



The Improved Corner Bit Brace is made in two sizes, eight and ten inch Sweep. The Gears are of Wrought Steel and have a Dirt Proof Covering. Head and Handles of Cocobolo Wood. Latest Improved Chuck. Full Nickel-Plate.

List No.		Price
4657	8-inch Sweep.....	\$3 50
4658	10-inch Sweep.....	4 00

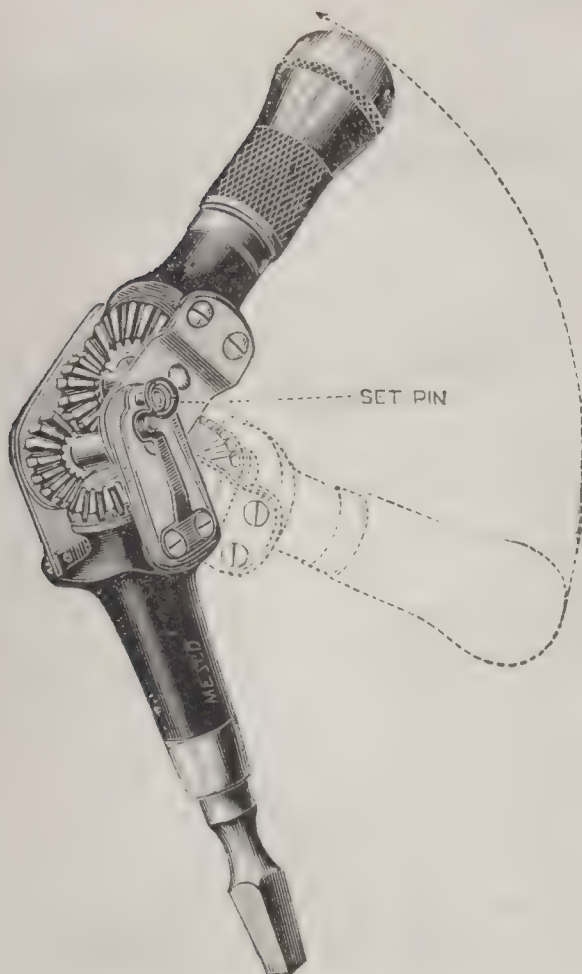
THE McCLELLAN PATENT CORNER BIT BRACE.



For heavy or light work. Will hold square or Round shank drills. Crank and Breast Rod are adjustable. Sweep of Crank twelve inches. Hardwood Handles with Ball Bearings. The tools are finely finished in Japan and Nickel.

List No.		Price.
4666	12-inch Sweep.....	\$5 00

RINN'S ANGULAR BORING MACHINE.



List No. 4665.

A tool adapted in connection with an ordinary Bit Brace to bore and ream holes, also for turning screws, nuts, etc., at angles heretofore impossible.

The chuck part of machine bends as far as the dotted lines show and is locked firmly with the Set-pin at the desired angle.

The gearings are turned out of bar steel and teeth cut. Shaftings and side plates are Bessemer Steel and the castings are Malleable Iron. All parts are turned and fitted to run perfectly true. A tool having a fine appearance, strongly made and bores at any angle, any and all sizes of holes with ease.

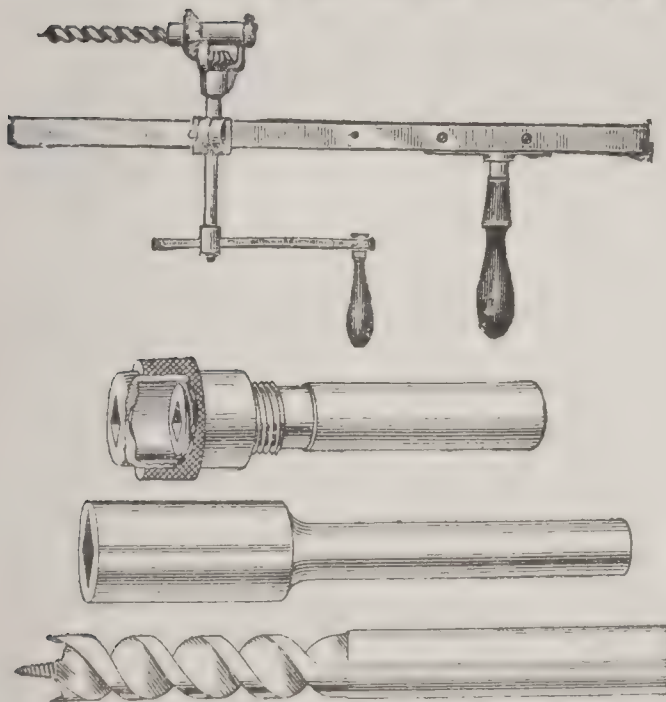
This implement is of incalculable value for boring where the ordinary brace cannot be used, in all places where there is not room for the regular brace handle to turn, and can be used for boring in corners, against partitions, alongside of walls, between beams, around projections, shelves, etc., and is therefore a tool peculiarly suited to the use of electricians, gas-fitters, plumbers, bell-hangers, carpenters, blacksmiths, wheel-wrights, cabinet makers, pattern makers, agricultural implement makers, etc.

List No.

Price.

4665 Each.....\$5.00

THE ANTHONY BORING TOOL.



The Anthony Universal Boring Tool is designed for boring between joists and in close corners. It can be used for all regular work and by any class of mechanics. The tool has a long range of adjustment from the guide to the bit. The crank can be set to any desired sweep up to 14 inches to suit the size of the bit. The machine can be taken apart in a few seconds for carrying in a grip or tool box. The chuck is made to fit a Russell Jennings Standard Machine Bit (half-inch shank) but an extra extension chuck for square shank bits will be supplied at small extra cost.

List No.

Price.

9850 Boring Tool\$10.00

9851 Anthony Extension Chuck, 1.00

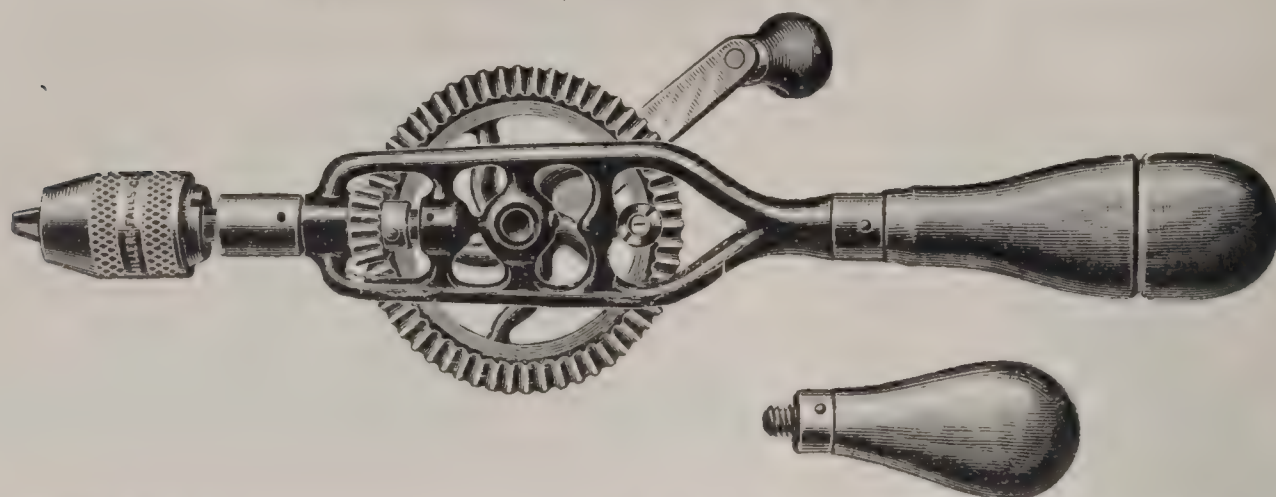
9852 Bolz Extension Chuck..... 3.00

Machine Bits for Same.

4 or 6 inch twist, with twisted shanks $\frac{1}{2}$ inch diameter.

Size Sixteenths.	3	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$	5	5 $\frac{1}{2}$	6
Price, each,	\$0.43	0.43	0.37	0.43	0.43	0.47	0.47
Size, sixteenths,	6 $\frac{1}{2}$	7	7 $\frac{1}{2}$	8	8 $\frac{1}{2}$	9	10
Price, each,	\$0.55	0.55	0.60	0.60	0.65	0.65	0.70
Size, sixteenths,	11	12	13	14	15	16	
Price, each,	\$0.77	0.83	0.90	0.98	1.05	1.12	

HAND DRILL. HOLLOW HANDLE.



These Drills are provided with Chucks having three jaws, resting in solid sockets. There are no springs to get out of place or out of order. The Chucks are nicked and the handles Cocobola. They hold drill from 0 to 3-16.

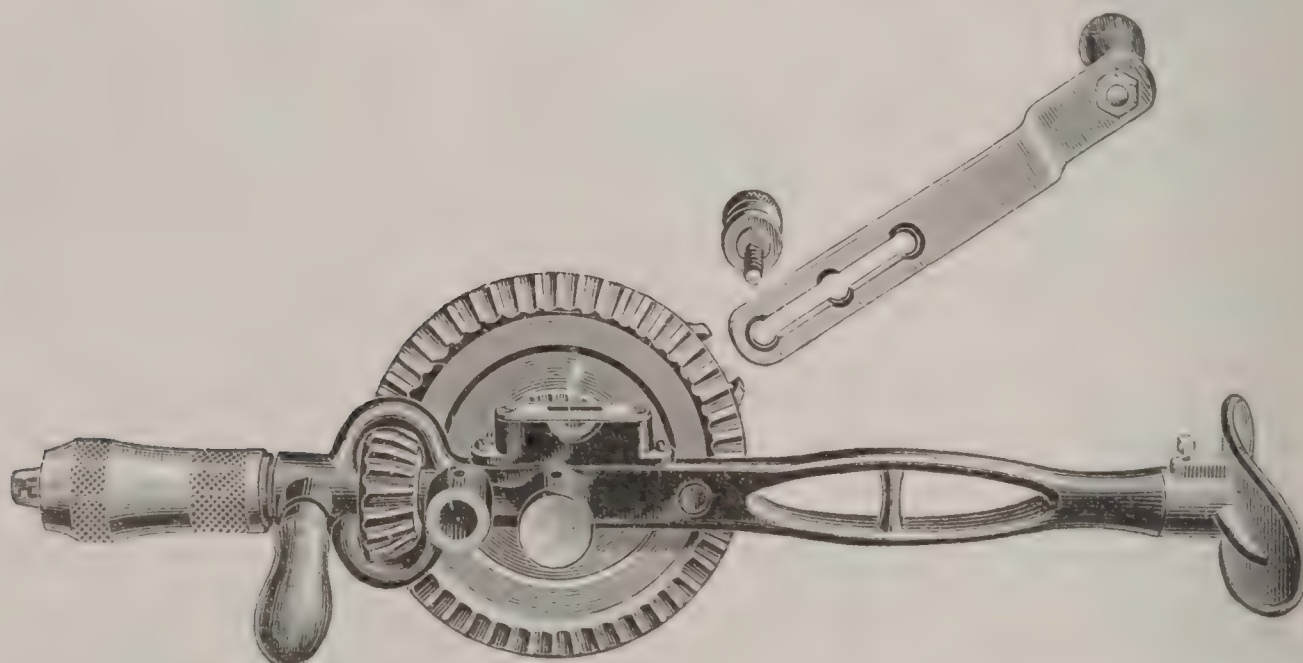
A side handle, as shown in cut, is furnished with this drill.

List No.

List No.		Price.
4678	Hand Drill, including 8 fluted points in hollow handle.....	each, \$2 00
4679	Extra Drill Points.....	per doz., 72

4679	Hand Drill, including 6 rated points in hollow handle.....	each,	\$2 35
4679	Extra Drill Points.....	per doz.,	72

BREAST DRILL, BALL BEARING.



Changeable gear from even to speeded about 3 to 1.

Has cut gears, adjustable cranks, level attachment to show when being held true, Alligator Jaws, holding both round and square shanks. Also an extra pair of jaws for fine drills. The handles are Cocobola and the chuck nickeled.

List No.

Net No.	Price.
#682 Breast Drill.....	each, \$3 00

AUGER BITS.



List No.	Sizes in Sixteenths.	Price
9838	4.....	each, \$0 25
9839	5.....	" 29
9840	6.....	" 32
9841	7.....	" 37
9842	8.....	" 40
9843	9.....	" 44
9844	10.....	" 47
9845	12.....	" 55
9846	16.....	" 75

EXPANSIVE BITS, CLARK'S.

List
No.

9847	With two Cutters.	One bores from $\frac{1}{8}$ to $\frac{3}{8}$, and the other from $\frac{7}{8}$ to $1\frac{1}{2}$ inches.....each,	\$1 50
9848	" " "	" " " $\frac{7}{8}$ " $1\frac{1}{4}$ " " " " $1\frac{1}{4}$ " 3 "	2 17

[illegible]

ELECTRICIANS' TWIST DRILLS.
BIT AND FISH WIRE COMBINED.



The numbers indicate the sizes in 32ds of an inch.

No.	12 INCH.		18 INCH.		24 INCH.		30 INCH.		36 INCH.	
	Doz.	Each.	Doz.	Each.	Doz.	Each.	Doz.	Each.	Doz.	Each.
6	\$6 20	\$0 65	\$8 50	\$0 85	\$11 00	\$1 10	\$13 50	\$1 35	\$16 00	\$1 60
8	6 25	65	8 75	90	11 25	1 15	13 75	1 40	16 25	1 65
10	6 75	70	9 25	95	11 75	1 20	14 25	1 45	16 75	1 70
12	7 50	75	10 00	1 00	12 50	1 25	15 00	1 50	17 50	1 75
14	8 55	85	11 00	1 10	13 50	1 35	16 00	1 60	18 25	1 85
16	10 00	1 00	12 50	1 25	15 00	1 50	17 50	1 75	19 50	1 95
18	11 25	1 15	13 75	1 40	16 25	1 65	18 75	1 90	21 00	2 10
20	12 50	1 25	15 00	1 50	17 50	1 75	19 50	1 95	22 00	2 20
22	13 75	1 40	16 25	1 65	18 75	1 85	20 75	2 10	23 00	2 30
24	15 00	1 50	17 50	1 75	20 00	2 00	22 00	2 20	24 00	2 40

By means of the holes drilled through the center web of these bits, electricians can fish their wires without the use of a secondary tool for that purpose. All bits up to and including $\frac{1}{2}$ inch diameter have "fish holes" for No. 14 Wire; after the insulation has been removed.

PLAIN TWIST DRILLS.
For Bell Hangers, Telephone and Telegraph Work.



STYLE E.

These drills will go through plastering, nails and even brick walls, and can be sharpened when dull. The numbers indicate the sizes in 32ds of an inch.

No.	12 INCH.		18 INCH.		24 INCH.		30 INCH.		36 INCH.	
	Per doz.	Each.	Per doz.	Each.	Per doz.	Each.	Per doz.	Each.	Per doz.	Each.
6	\$5 00	\$0 50	\$7 00	\$0 70	\$9 00	\$0 90	\$11 00	\$1 10	\$13 00	\$1 30
8	5 00	50	7 00	70	9 00	90	11 00	1 10	13 00	1 30
10	5 50	55	7 50	75	9 50	95	12 00	1 20	13 00	1 30
12	6 00	60	8 00	80	10 00	1 00	12 00	1 20	13 00	1 30
14	7 00	70	9 00	90	11 00	1 10	13 00	1 30	14 00	1 40
16	8 00	80	10 00	1 00	12 00	1 20	14 00	1 40	15 00	1 50
18	9 00	90	11 00	1 10	13 00	1 30	15 00	1 50	16 00	1 60
20	10 00	1 00	12 00	1 20	14 00	1 40	15 00	1 50	16 00	1 60
22	11 00	1 10	13 00	1 30	15 00	1 50	16 00	1 60	17 00	1 70
24	12 00	1 20	14 00	1 40	16 00	1 60	17 00	1 70	18 00	1 80
26	13 00	1 30	15 00	1 50	17 00	1 70	18 00	1 80	18 00	1 80
28	14 00	1 40	16 00	1 60	18 00	1 80	19 00	1 90	19 00	1 90
30	15 00	1 50	17 00	1 70	19 00	1 90	20 00	2 00	20 00	2 00
32	16 00	1 60	18 00	1 80	20 00	2 00	20 00	2 00	20 00	2 00

LONG GIMLETS FOR INSIDE WIRE
WORK.



REGULAR, STYLE A.

With handles as above or without handles, for using in a brace.

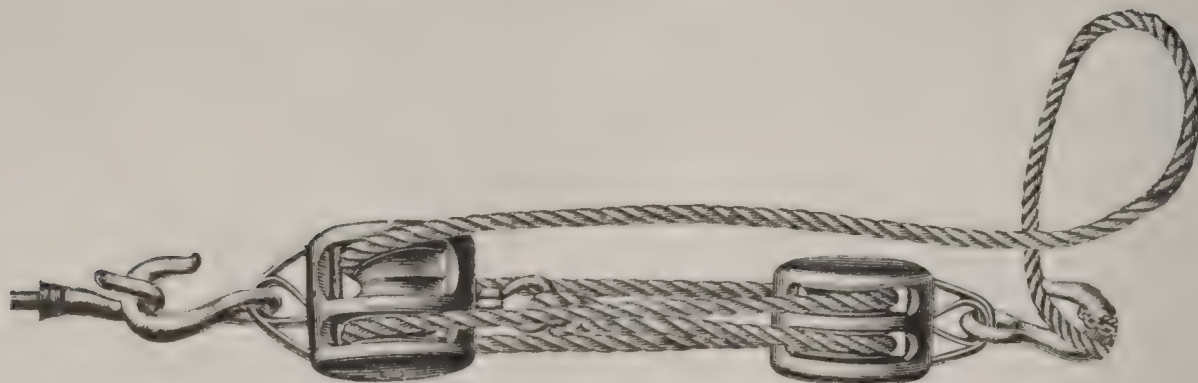
	Price.		Price.
12 inch x $\frac{1}{4}$ or $\frac{5}{16}$	\$0 50	30 inch x $\frac{1}{4}$ or $\frac{5}{16}$	\$0 55
18 " x $\frac{1}{4}$ or $\frac{5}{16}$	50	36 " x $\frac{1}{4}$ or $\frac{5}{16}$	60
24 " x $\frac{1}{4}$ or $\frac{5}{16}$	55		

TOOLS.

Walton Patent Self-Locking Block.

ROLLER BUSHED.

GALVANIZED.



For linemans' use this Block is unexcelled, as it saves time, money and labor. It will work horizontally, upside down or at any angle. It is impossible for the rope to slip when locked. There is only one rope to hoist, lower and lock the load, and it is impossible for the rope to jam or chafe.

We recommend Nos. 30½ and 37 for repair or trouble work and No. 39 for guys. Numbers 42½ and 43 are used for taking up slack in line work and No. 47 for erecting poles.

List No.	Mfrs. No.	Length of Block.	Diam. of Rope.	Upper and Lower Block.	One Man Can Hoist Easily.	Block Capacity.	Price Per Set.
4539	30½	3 In.	¾ In.	Doubles.	250 Lbs.	700 Lbs.	\$4 00
4640	37	4 "	½ "	T. & D.	400 "	1750 "	5 75
4641	39	6 "	¾ "	"	500 "	2500 "	8 50
4642	42½	3 "	¾ "	Triples.	450 "	1400 "	5 50
4643	43	4 "	½ "	"	600 "	1800 "	7 00
4644	47	8 "	1 "	"	1000 "	5000 "	15 50

Gem Wire Grip or Comealong.



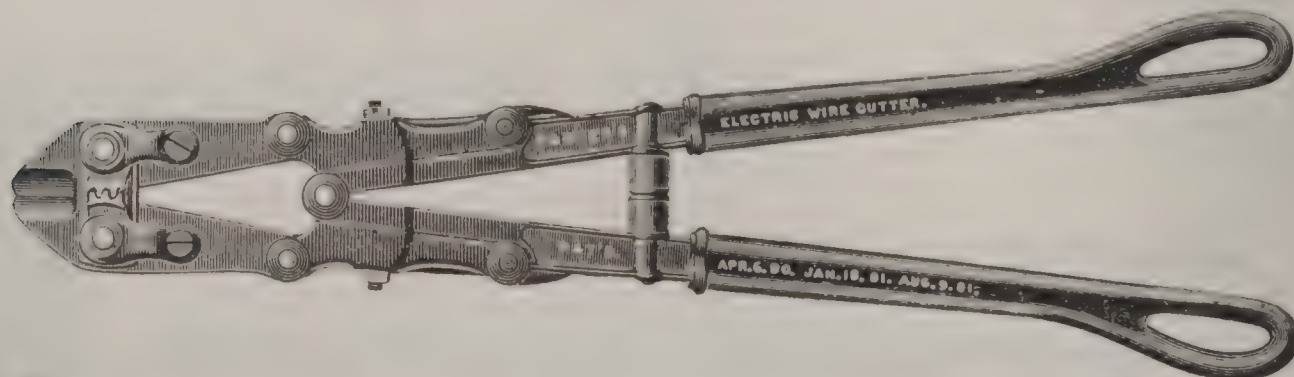
The Gem Grip is used in hauling wires or cables into ducts or conduits. It is applied in one second and can not slip. When through it can be slipped off in one second.

No skinning of insulation, no solder, no tape.

Pulls No 14 Duplex, as well as larger wire or any number together — especially useful in pulling two or three wire feeders.

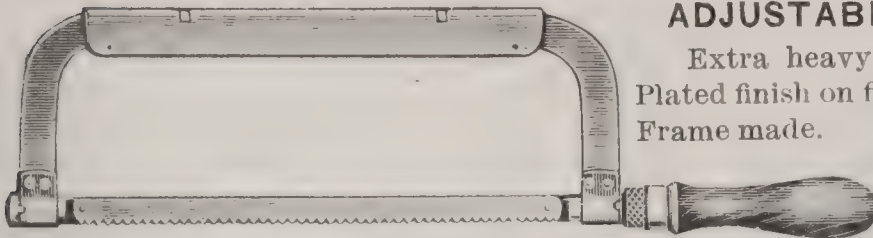
List No.	Size.	Price.	List No.	Size.	Price.
4645	¼ in. to ½ in.	Each \$0 70	4647	1½ in. to 2 in. each,	\$3 00
4646	¾ " " 1¼ "	2 50	4648	2½ " " 3 " "	3 50

Heavy Wire and Bolt Clipper.



List No.	Price.
4517 , Will cut ¾ inch Bolt.....	Each \$6 00
4518 " " ½ " "	" 8 00

TOOLS.



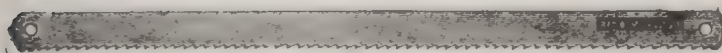
ADJUSTABLE HACK SAW FRAME.

Extra heavy Back, absolutely rigid. Nickel-Plated finish on fine Tool Steel. The best Hack Saw Frame made.

List No.	Price.
4659 Hack Saw Frame only	\$1 00

R. D. HACK SAW BLADES.

Made of best Steel and tempered by secret process. Will positively do 30 per cent more work than any other make.



List No.	Width of Blade,	Price. Per doz.
4387 6-inch.	$1\frac{7}{8}$ inch	\$0 55
4388 7 "	" "	60
4389 8 "	" "	65
4390 9 "	" "	70
4391 10 "	$1\frac{1}{2}$ "	85
4392 12 "	" "	1 05



BROAD HATCHETS.

List No.	Size of cut,	Price. Per doz.
4403	$4\frac{1}{2}$ -inch	\$11 50
4405	$5\frac{1}{4}$ "	14 50
4407	$6\frac{1}{2}$ "	18 00



SOCKET FRAMING CHISELS.

Best Cast Steel, eight inch Blades.

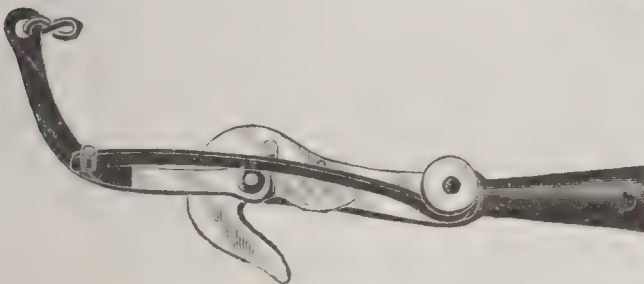
List No.	Price. Per doz.
4412 $1\frac{1}{4}$ inch	\$18 00
4413 $1\frac{1}{2}$ "	20 00
4415 2 "	24 00



DRAW KNIFE.

Telegraph pattern. Extra wide and strong Blades.

List No.	Price. Per doz.
4410 12-inch Blade	\$22 00



TREE TRIMMER.

Without Handle.

List No.	Price.
4367 "Favorite" Tree Trim., 18 in. overall	\$2 50
4368 " " " 21 " "	3 00



COMBINED TRIMMER AND SAW.

Without Handle.

List No.	Price.
4369 Combined Trimmer and Saw	\$3 00

HANDLES FOR TREE TRIMMERS.

List No.	Price.
9853 18-foot Handle for 18-inch Trimmer	0 90
9854 18-foot Handle for 21-inch Trimmer	90
9855 Two 9-foot Handles joined with ferrule in centre	1 50

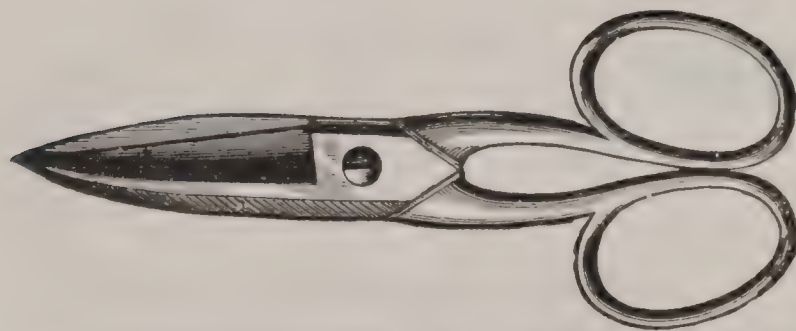
TOOLS.

ELECTRICIANS' POCKET TOOL KIT.



This Outfit is indispensable to the practical electrician. The Case is made of the best quality of Russet Leather, Hand-Stitched. It is of convenient pocket-book style, with firm Metallic Clasp, and measures 3 x 6 inches. It contains the following tools, viz.: One Electrician's Knife, one Oil Can, one pair Nickel-Plated six-inch Pliers, one File, one pair Tweezers, one pair Electrician's Shears, and one Screw-Driver.

List No.		Price
4685	For complete Kit	\$6 00
4686	" Case only	1 50
4688	" Oil Can	20
4689	" 6-inch Pliers	1 50
4690	" For File	30
4691	" For Tweezers	50
4693	" For Screw-Driver	25



ELECTRICIANS' SCISSORS.

Extra Heavy Blades, used for cutting and stripping wire.

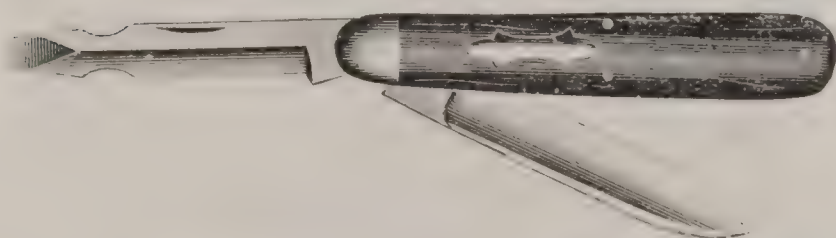
List No.	Price.
4675 Nickel-Plated	\$1 00

ELECTRICIANS' COMBINATION KNIFE AND SCREW-DRIVER.



Just the Knife for linemen. Has a strong, well tempered Blade, which tapers to a Screw-Driver end. Has keen Cutting Edge, for cutting insulation and scraping wire. Locked when open.

List No.	Price.
4636 Single Blade Combination Knife	\$0 80



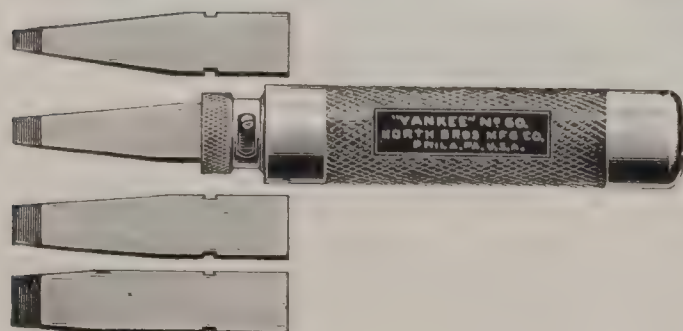
DOUBLE BLADE COMBINATION KNIFE.

This Knife has large Pocket-Knife Blade in addition to the Screw-Driver Blade. The Screw-Driver Blade is locked when open

and can not be closed on the hand when in use.

List No.	Price.
4660 Double Blade Combination Knife	\$1 30

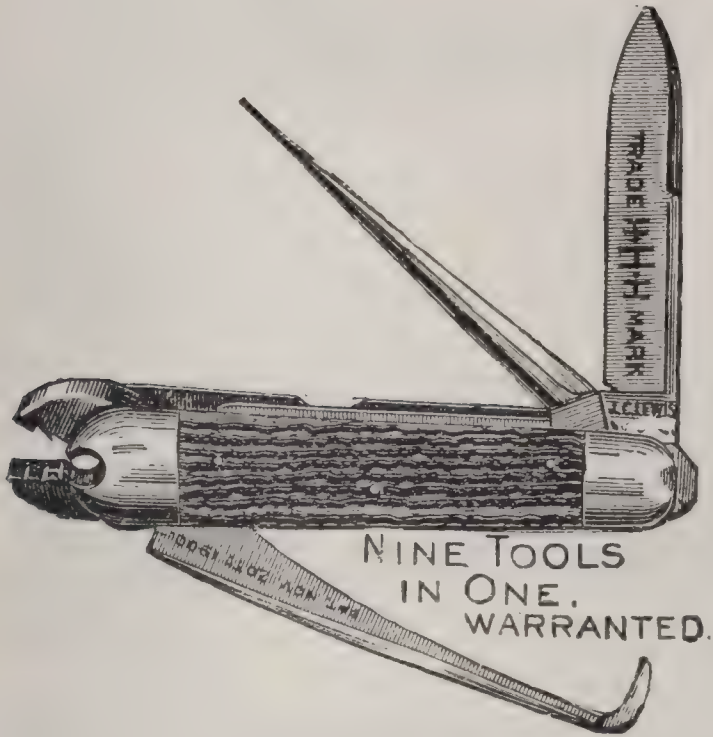
"YANKEE." POCKET MAGAZINE SCREW-DRIVER.



The need and usefulness of this Tool will be instantly recognized. It is made with four detachable Blades of varying widths and thicknesses. The Blades are kept in Magazine formed by Handle. Measuring when closed 3 inches long by $\frac{5}{8}$ inch in diameter. Handsomely polished and Nickel-Plated.

List No.	Price.
9883 Magazine Screw-Driver	\$0 80

TOOLS.

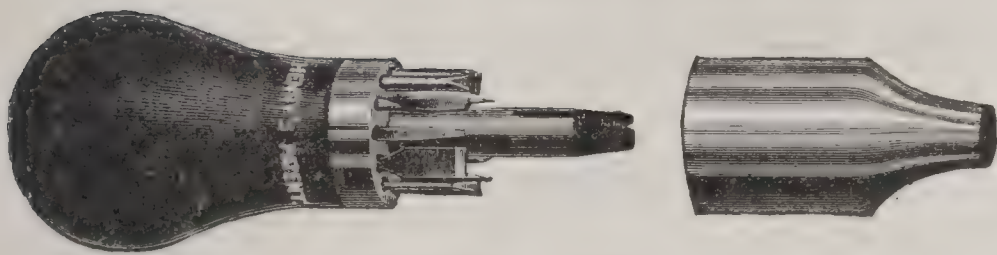


THE UNIVERSAL TOOL.

Embodies Pocket Knife, Leather Punch, Swedging Awl, Wire Cutter, Wire Pliers, Alligator Wrench, Scrapping Hook, Screw-driver, Screw Bit. All contained within the dimensions of an ordinary pocket knife.

List No.	Price.
9886 Universal Tool.....	\$1 50

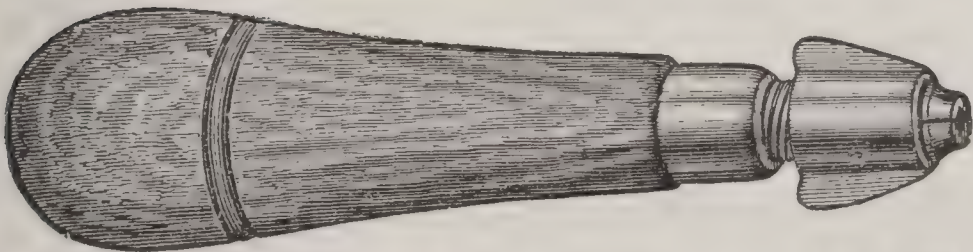
COMBINATION HAFT



CUT ONE-HALF SIZE.

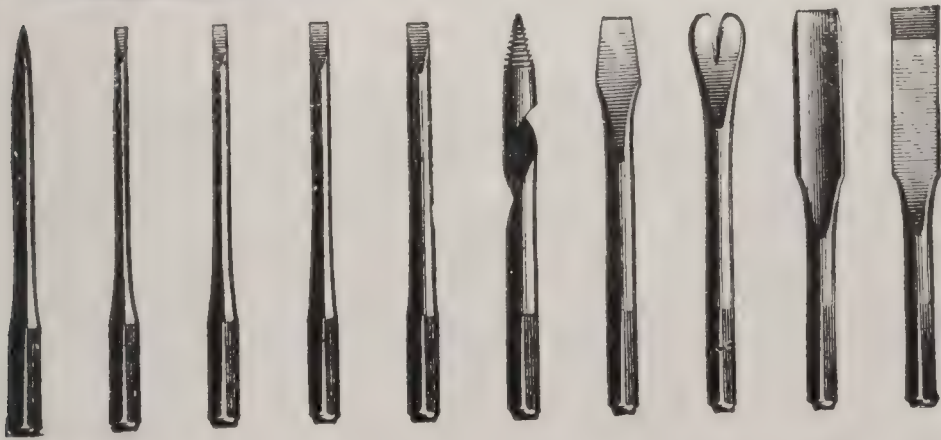
This convenient Tool Handle contains Twelve Tools.especially adapted for light jobbing and repairing. After removing Metal Cap the Tools stand in view for selection.

List No.	Price.
4651 Haft Complete.....	\$1 00



HOLLOW HANDLE TOOL SETS.

These Handles and Tools are first class in every respect. The Handle is Cocobolo Wood, the Jaws, Clamping Nut and Ferrule are Nickel-Plated. Tools are made of Cast Steel, properly tempered. Tools consist of Chisel, Tack-Puller, Gouge, Gimlet, Screw-Driver, Reamer, Scratch Awl and Four Brad Awls of different sizes.



List No.	Price.
4695 Cocobolo Handle. Per Set.....	\$1 00
4696 Maple Handle. Per Set.....	75

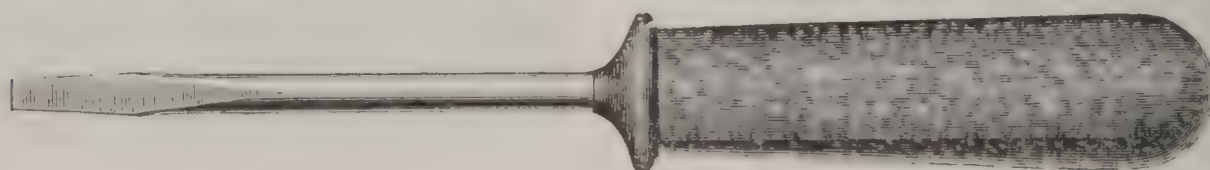
CHAMPION PATTERN SCREW-DRIVER.



List No.			Price.
4620	2½ inch.	Per dozen.....	\$3 60
4621	3 "	" 	4 20
4622	4 "	" 	5 10
4623	5 "	" 	6 00

List No.			Price.
4624	6 inch.	Per dozen.....	\$7 20
4626	8 "	"	9 60
4628	10 "	"	12 00
4629	12 "	"	14 40

THE VULCAN INSULATED SCREW-DRIVER.

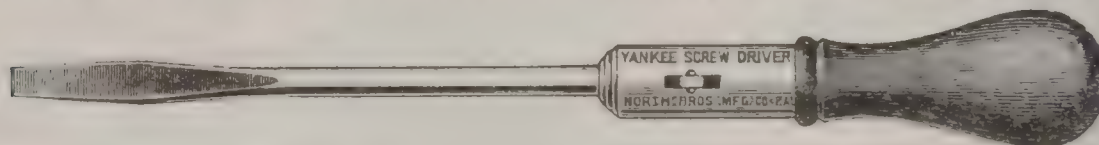


MICA INSULATED HANDLE.

List No.	Price.
4597 2½ inch Blade.....each,	\$0 50
4599 4 " " " " " " " " " " " "	70

List No.		Price.
4600	5 inch Blade.....each,	\$1 00
4601	6 " "" "	1 15

YANKEE RATCHET SCREW-DRIVERS.

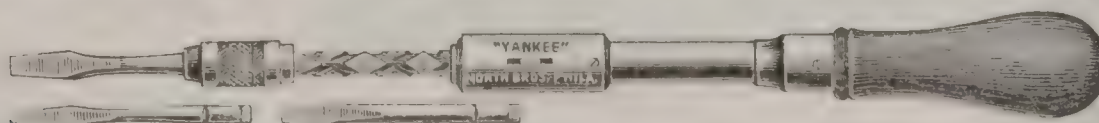


The friction in ratchet mechanism is so slight as to be hardly felt ; the backward movement is as easy as in a good " stem-winder " and just as noiseless. The construction of ratchet and pawls is such that neither can bend nor break, wear or get out of order, and permits a very compact arrangement. The adjustment for right or left hand is exceedingly simple. If the slide is placed midway between ends of slot, the blade is held rigidly and the driver can be used as an ordinary screw-driver with fixed blade.

List No.		Price.
9875	2 inch blade.....each,	\$0 55
9876	3 " " " " " " " "	70
9877	4 " " " " " " " "	80

List No.		Price.
9878	5 inch blade.....each,	\$1 00
9879	6 " " " " " " " " " " " "	1 15
9880	8 " " " " " " " " " " " "	1 35

YANKEE SPIRAL RATCHET SCREW-DRIVERS.



List No. 9881.

Right or Left Hand Ratchet, or Rigid at Variable Lengths.

The change from right to left hand for either push or ratchet is made by simply moving the slide to either end of the slot. The ratchet movement can be used in any part of the length of tool for either right or left hand. When slide is placed in center of slot the rod is held rigidly and tool can be used as an ordinary screw-driver, and this at any point in length of rod. When extended, this gives a very long screw driver.

Neither pawls nor ratchets can bend, break or get out of order. The friction in ratchet mechanism is so slight as to be hardly felt, the backward movement is as easy as a good "stem winder," and quite as noiseless.

List No.	Price.
9881 Nickel-plated, stained cherry handle, length with bit 11 in., extended, 19¼ in., 3 forged steel bits.....each,	\$2 75

List No.

List No.

List No.

A black and white photograph of a long, thin, curved object, possibly a piece of wood or bone, with a small circular mark near the center. The object is oriented horizontally and has a slightly irregular, weathered appearance. The circular mark is located towards the right side of the object and contains some indistinct markings or text. The background is a plain, light color.

List No.

List Mfrs.

Drill.	Chuck.
1	1
2	2
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100	100

Hammer.

Hollow Punch.

List No.

List No.	Price.	List No.	Price.
9866	Pierce drill, with one $\frac{1}{8}$ in. drill point, \$6 00	9867	Extra drill points..... each, \$1 00

THE STAR EXPANSION BOLT SHIELD.



PATENTED.

An immediate expansion on entrance of bolt into anchor with a simultaneous lateral expansion which prevents any turning of shield in the hole. A recessed entrance in the shield which permits the ordinary trade bolt to penetrate beyond the regular trade thread.

LIST PER 100, WITHOUT SCREWS.

List No.	Diam. of Screw.	No. of Threads to inch.	Price per 100 Shields.	Dimension of Shields.			
				Long Standard		Short Standard.	
				Length.	Outside Diam.	Length.	Outside Diam.
10024	$\frac{5}{8}$	9	\$ 9 00	2	$\frac{1}{2}$	1	$\frac{1}{2}$
10025	$\frac{3}{8}$	7	11 50	$2\frac{3}{4}$	$\frac{5}{8}$	$2\frac{1}{2}$	$\frac{5}{8}$
10026	$\frac{1}{2}$	6	18 00	$3\frac{1}{2}$	$\frac{1}{2}$	$2\frac{1}{2}$	$\frac{1}{2}$
10027	$\frac{1}{2}$	5	18 00	$3\frac{1}{2}$	$\frac{3}{4}$	$2\frac{1}{2}$	$\frac{3}{4}$
10028	$\frac{5}{8}$	5	22 00	$3\frac{1}{2}$	$\frac{7}{8}$	$2\frac{1}{2}$	$\frac{7}{8}$
10029	$\frac{3}{4}$	$4\frac{1}{2}$	30 00	$3\frac{1}{2}$	1	$2\frac{1}{2}$	1
10030	$\frac{7}{8}$	4	41 50	5	$1\frac{1}{2}$		
10031	1	4	51 00	5	$1\frac{1}{2}$		
10032	$1\frac{1}{4}$	3	64 00	5	1 $\frac{7}{8}$		

THE STAR SCREW ANCHOR.



This anchor is made in various diameters and lengths and of but one piece of composition metal. Its internal construction permits its use in combination with the regular trade wood or machine screw of any desired length. We specially recommend The Star Screw Anchor, No. 18, for the secure fastening of telephone and telegraph wires on brick and stone buildings.

List No.	No.	Screw	Length Anchor	Outside Diam.	No. in Box.	Price per 100.
10033	6x $\frac{1}{2}$	6-7 or 8	$\frac{1}{2}$	$\frac{1}{4}$	100	\$2 10
10034	6x $\frac{5}{8}$	6-7 or 8	$\frac{5}{8}$	$\frac{1}{4}$	100	2 10
10035	6x $\frac{3}{4}$	6-7 or 8	$\frac{3}{4}$	$\frac{1}{4}$	100	2 10
10036	10x $\frac{1}{2}$	9-10 or 11	$\frac{1}{2}$	$\frac{5}{8}$	100	2 40
10037	10x $\frac{3}{4}$	9-10 or 11	$\frac{3}{4}$	$\frac{5}{8}$	100	2 40
10038	10x1	9-10 or 11	1	$\frac{5}{8}$	50	2 40
10039	14x1	12-13 or 14	1	$\frac{7}{8}$	50	2 70
10136	18x1	15-16-17 or 18	1	1 $\frac{1}{2}$	50	3 00

Above prices are without screws.

In giving your order kindly specify number of screw to be used.



Wedge-shaped Head.

Lead Sleeve

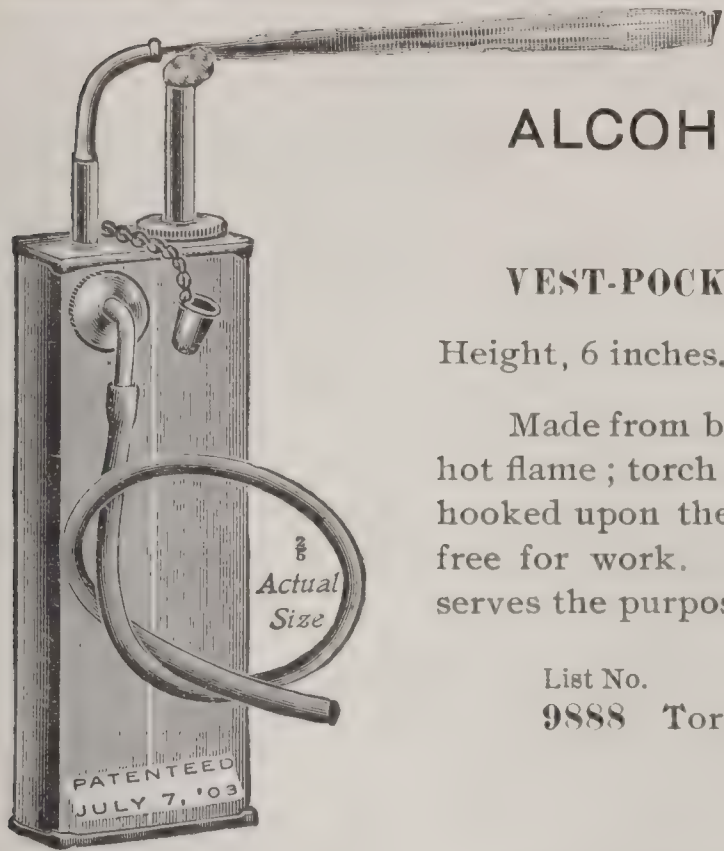
$\frac{1}{4}$ x $2\frac{1}{2}$ inch Bolt. Pat'd.

PIERCE EXPANSIVE-LEAD BOLT.

This provides the cheapest and most secure method of attaching anything to a brick or stone wall. A hole is drilled in the brick, the bolt is inserted head foremost, and with a hollow punch the lead sleeve is driven back upon the wedge-shaped head and thus expanded into every crevice of the masonry. By virtue of the wedge-shaped head the more strain put upon the bolt the tighter it becomes.

List No.		Price per 100.	List No.		Price per 100.
9700	$\frac{1}{4}$ x $1\frac{3}{4}$ -inch	\$4 80	13731	$\frac{3}{8}$ x $5\frac{1}{2}$ -inch	\$12 60
9701	$\frac{1}{4}$ x $2\frac{1}{2}$ "	4 80	13732	$\frac{1}{2}$ x $2\frac{1}{2}$ "	12 60
9702	$\frac{1}{4}$ x $3\frac{1}{4}$ "	6 00	13733	$\frac{1}{2}$ x $3\frac{1}{2}$ "	13 20
9703	$\frac{3}{8}$ x $2\frac{1}{2}$ "	8 40	13734	$\frac{1}{2}$ x $4\frac{1}{2}$ "	13 80
13728	$\frac{3}{8}$ x3 "	9 00	9705	$\frac{1}{2}$ x5 "	14 40
13729	$\frac{3}{8}$ x $3\frac{1}{2}$ "	9 60	13735	$\frac{1}{2}$ x $5\frac{1}{2}$ "	16 20
13730	$\frac{3}{8}$ x $4\frac{1}{2}$ "	10 80	13736	$\frac{1}{2}$ x $6\frac{1}{2}$ "	18 60
9704	$\frac{3}{8}$ x5 "	12 00	13737	$\frac{1}{2}$ x8 "	21 00

Any special size made to order on short notice.



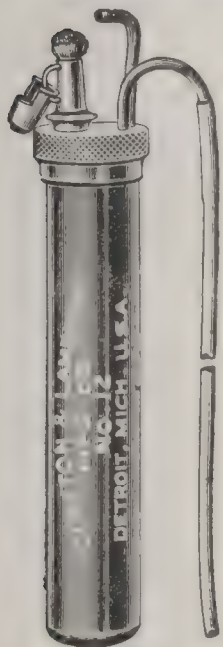
ALCOHOL AND GASOLINE TORCHES

VEST-POCKET GASOLINE BLOW TORCH.

Height, 6 inches. Width, $1\frac{3}{4}$ inch. $\frac{7}{8}$ inch Thick.

Made from brass tubing finely nickel-plated. Small hot flame ; torch can be held in any position. It can be hooked upon the little finger, thus leaving both hands free for work. Also for working in dark corners it serves the purpose of a torch.

List No.	Price.
9888 Torch, complete.....	each, \$2.00



THE MIDGET POCKET TORCH

Burns either gasoline or alcohol. It is made on new principles by which the air blast is passed through a chamber charged with gasoline or alcohol gas, which makes a much stronger fire than can be had in any other way. When blow tube is not used the torch makes a fine candle, which the user will find valuable when working in dark places. A hook is provided so that it may be hung up. This torch is well made, all parts being brass, nickel-plated, and finely finished. Size being $\frac{7}{8}$ in. diameter, and 6 in. high—just fits the vest pocket. As this torch does first-class work using gasoline for fuel, which is much cheaper than alcohol, it will save its cost in a short time in cost of fuel alone.

List No.	Price.
4706 Nickel-plated.....	each, \$1.50

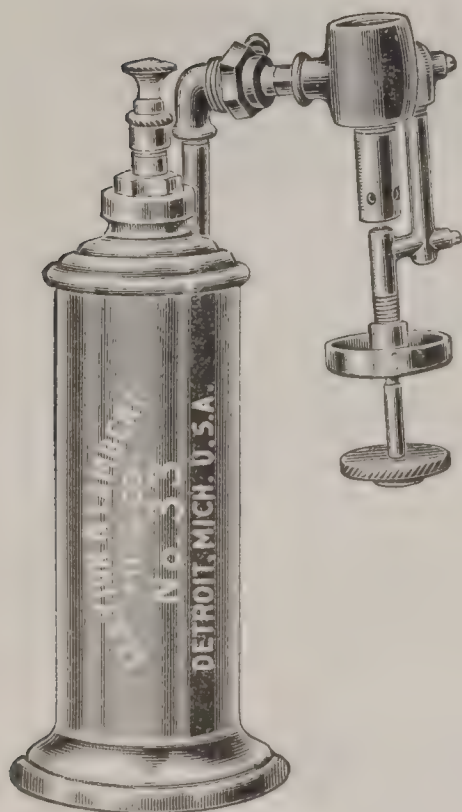


ALCOHOL TORCH.

The tank is $1\frac{3}{4}$ inch in diameter and 6 inches high, drawn out of heavy brass, free from seams. The blow pipe is adjustable—can be raised or lowered by turning the adjusting nut. The cap can be screwed down tight when torch is not in use, thus preventing evaporation—saving the user more than its cost in this way alone. It is finely finished, and we supply them polished or nickel-plated.

List No.	Price.
4704 Polished Brass.....	each, \$2.00
4705 Nickel-plated.....	“ 2.20

GASOLINE TORCHES.



List No. 9889.

This is no toy, but a good, serviceable Torch.

Just the thing for inside wiring, light brazing, and a thousand other things which will suggest themselves to the user. The torch is light, self-contained, can be carried in the pocket, and is ready for use instantly; lights with a match. The tank is supplied with a pump so that air pressure can be applied, making a blue blast flame, which, while small, and running to a fine point, is intensely hot. The burner hangs on a swivel, so that the flame can be thrown in any direction, is a powerful generator, consuming but little gasoline, and will save the user its cost in a short time.

List No.	Price each.
9889 Torch complete, Polished Brass.	\$4.00
9890 " " Nickel-plated...	4.50



List No. 4709.

A thoroughly well-made torch. The tank is drawn in one piece out of heavy brass, and it has brass air pump in handle. This burner has a powerful generator, which produces a strong, clear, blue flame using very little gasoline. In fact it will soon save the user its cost in the saving of gasoline alone. It is light, well balanced, easily handled, and will please the user. Tank holds one quart.

List No.	Price each.
4709 Polished Brass.....	\$4.50
4710 Nickel-plated.....	5.00

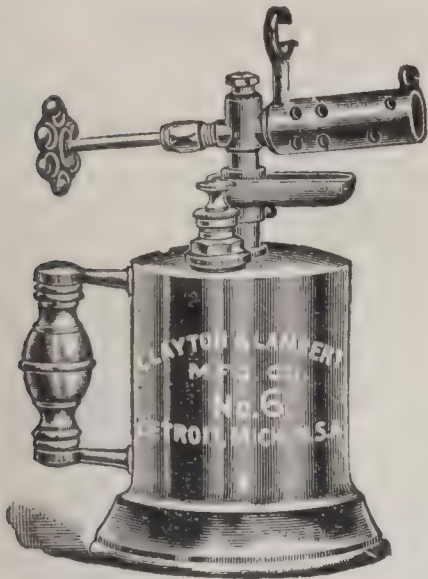


List No. 4711.

This is a quart size torch having every improvement that improves. The tank is drawn out of heavy brass, free from seams, and all fittings are heavy. Reinforcements are used to make an extra strong tank. A brass air pump of the latest design forms part of the handle. The burner used is a strong generator, producing a clear, blue, blast flame, using very little gasoline. A hook and a support is provided on the burner tube so that soldering coppers may be heated when desired. It is finely finished, and though strong, is light, nicely balanced, and easily handled.

List No.	Price each.
4711 Polished Brass.....	\$5.00
4712 Nickel-plated.....	5.50

GASOLINE TORCHES.



This torch meets the demands of the trade for a torch that could be used for any purpose requiring the use of a torch, and, in addition, heats soldering irons. There is a hook on the burner for holding the iron in place. It is a very popular torch.

Tank holds one quart.

List No.	Price each.
4707 Polished Brass.....	\$6.00
4708 Nickel-plated	6.50



The All Right Torch.

One quart size, heavy brass tank, inside pump. Well balanced and can be used in either hand. A fine torch.

List No.	Price each.
4713 Torch complete, Polished Brass,	\$5.00
4714 " " Nickel-plated..	5.50



A very powerful torch, will work in any wind and gives an intense heat. Has soldering iron hook. No better torch on the market.

List No.	Price each.
9891 Torch, complete, Polished Brass,	\$6.00
9892 " " Nickel-plated..	6.50

THE WELLINGTON AUTOMATIC GASOLINE TORCH.

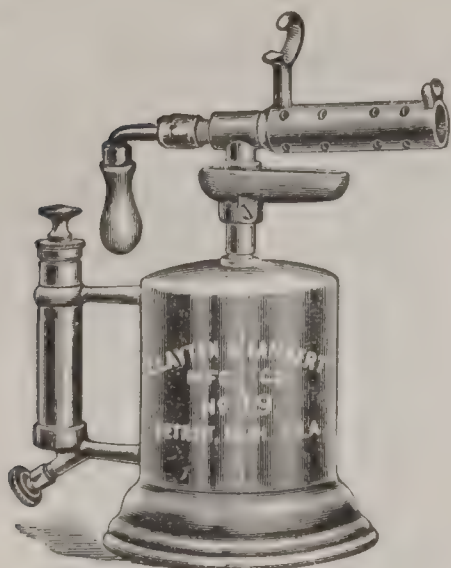


This is a very well-known and popular torch. Tank holds one quart. It furnishes a strong, continuous hot flame.

This torch can be used in any position, a very desirable feature.

List No.	Price each.
4717 Torch complete, Pol. Brass...	\$6.00

GASOLINE TORCHES.

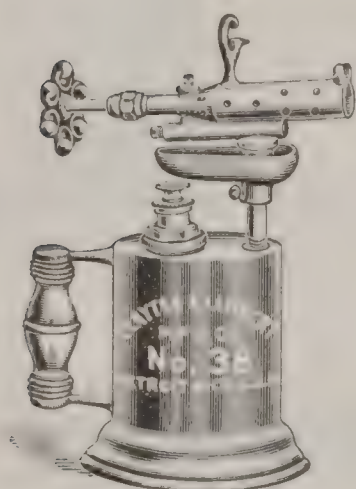


List No. 9894.

This is the one pint size, just right for tool bag. Has improved brass pump in handle, and is a perfect generator, producing a clear blue flame. It has hook and rest for heating soldering coppers.

Strong and well made.

List No.		Price Each.
9894	Torch, complete, Polished Brass,	\$4.50
9895	" " Nickel-plated..	5.00



List No. 9896.

This is a one pint torch that has no equal ; has improved pump and best generator which produces a blue needle-point flame of intense heat. Will work in a high wind and in zero weather.

Extra heavy and well made.

Has soldering iron hook.

List No.		Price Each.
9896	Torch, complete, Polished Brass,	\$5.00
9897	" " Nickel-plated..	5.50



List No. 9898.

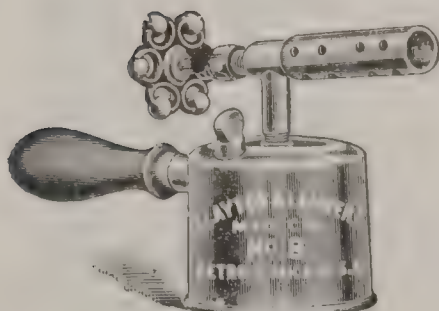
This is a one pint torch that is O.K. and up-to-the-minute at a very low price.

First-class in every respect.

Well made, strong and durable.

List No.		Price Each.
9898	Torch, complete, Polished Brass,	\$4.00
9899	" " Nickel-plated..	4.50

BABY GASOLINE TORCH.

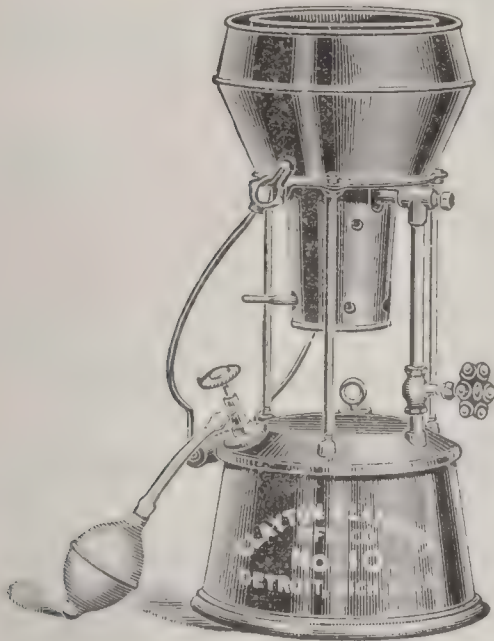


List No. 4715.

This style of torch does not use a pump to generate air pressure--it depends upon heat to do this. The tank is a solid brass casting, fitted with cast bottom, which screws to place and is then brazed, and will withstand an enormous pressure. It has an adjustable handle, so that it can be held in any position.

List No.		Price Each.
4715	Torch, complete, Polished Brass,	\$4.00
4716	" " Nickel-plated .	4.50

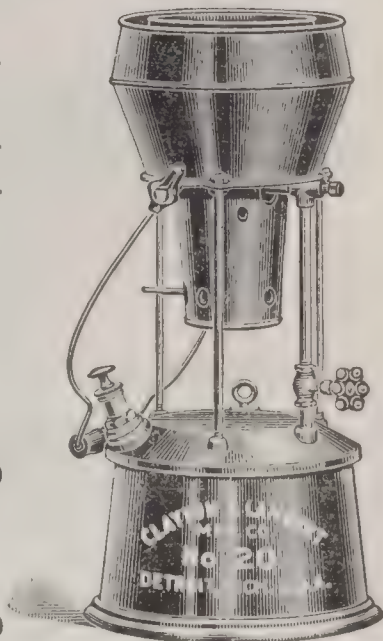
GASOLINE FIRE POTS.



List No. 4728.

These coil fire pots have a large and heavy generator. The tanks are of heavy galvanized iron. All small castings are of malleable iron. A thoroughly good fire pot.

List No.	Price.
4728	Fire pot complete, with rubber bulb..... \$6.00
9901	Fire pot complete, with brass pump... 6.50



List No. 9901.

CHARCOAL SOLDERING FURNACE.



For melting solder and heating soldering irons. Opening in top admits 6 inch melting pot. Furnace is provided with grate.

List No.	Price.
9905	Soldering furnace.....\$8.00

SOLDER POTS AND LADLES.



List No. 4727.

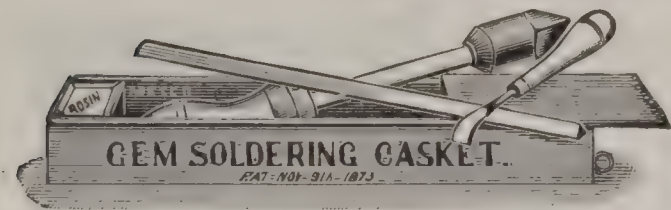
Will fit any fire pot.



Wrought Steel Ladles.

List No.	Price.	List No.	Price.
4727	6 in. diameter.....each, \$1.00	9902	3 in. diameter.....each, \$0.50
		9903	4 in. " " .75

SOLDERING OUTFIT.



The casket contains Soldering Iron, Scraper, large bar of Solder, box of Soldering Salts, and full directions, all inclosed in fancy box.

List No. Price.
4718 Gem Soldering Casket, complete.....\$1 50

List No. 4718.

SOLDERING COPPERS.

Standard Soldering Coppers.



List No. 4720.

Stock sizes, 3/4, 1, 2 and 3 lbs.

List No. Price.
4720 Each.....per lb., \$0 70

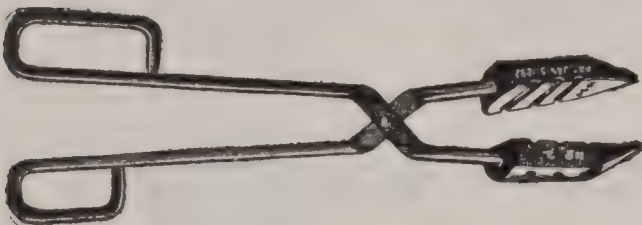
Jeweler's Soldering Coppers.



List No. 4719.

List No. Price.
4719 Each.....\$0 50

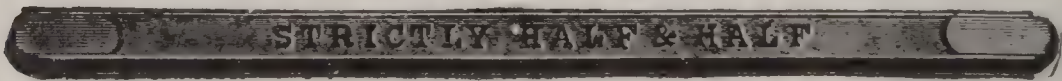
Excelsior Soldering Coppers.



The joints are grasped between the heated jaws of the Copper, and wire solder is fed into the holes in the upper jaw which melts the solder and allows it to flow into the coils of the joint, soldering it completely and quickly without waste of solder.

List No. Price.
9906 Excelsior Soldering Copper, for soldering joints on 12, 14 and 16 wire.....\$3 00
9907 " " " " " 9-12 and 14 " 3 50
9908 " " " " " 4, 6 and 8 " 4 50

SOLDER.



List No. BAR SOLDER. Price.
4730 Strictly Half and Half.....per lb., \$0 35



List No. WIRE SOLDER. Price.
4731 Wire Solder.....per lb., \$0 40



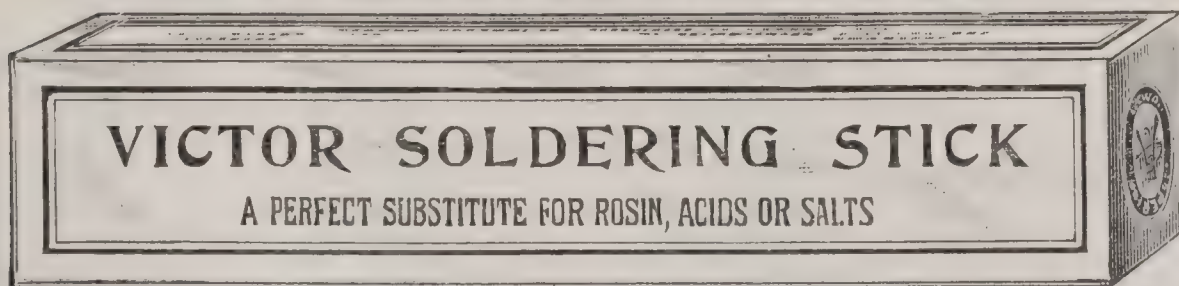
SOLDERENE

A new, rapid and convenient condensed preparation for soldering, suitable for all Electrical and Mechanical purposes

and for making and repairing all metal work where solder, soldering iron, acids, pastes and other paraphernalia would otherwise be required. Solderene is composed of pure, high-grade base metals, ground and mixed with new, quick-acting fluxes and compressed into convenient hexagonal stick form as shown in the illustration. It is a complete soldering equipment. Instantly solders gold, silver, copper, brass, zinc, iron, steel, etc., etc. Stronger than solder! Does not contain mercury or bismuth. Can be used without Soldering Copper as a match or candle will "run" it, but when "set" it holds more firmly than any solder made. One stick will solder 100 or more joints.

Price.
List No. 9910 Solderene.....per stick, \$0 15

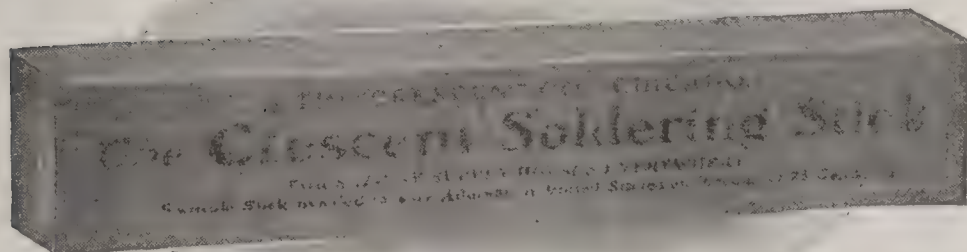
VICTOR SOLDERING STICK.



A perfect soldering flux for electrical wiring. Non-corrosive, quick and convenient, no waste, no breakage. Guaranteed equal to the best made.

List No. 9911 Victor soldering stick.....Price each, \$0 20

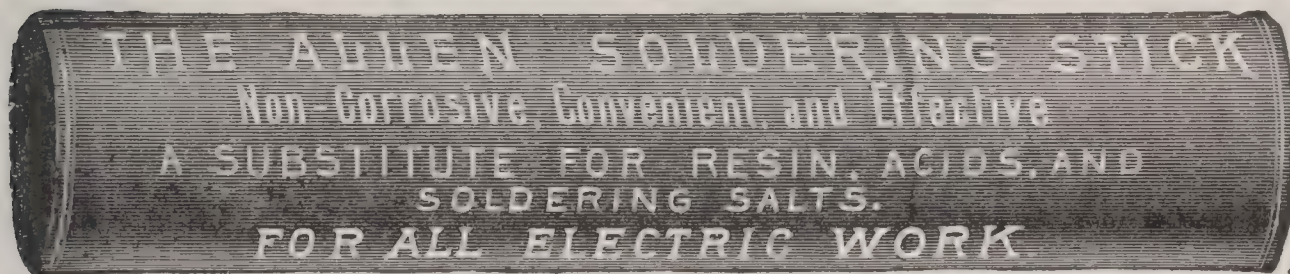
CRESCENT SOLDERING STICK.



The Crescent soldering stick is $\frac{7}{8}$ x 6 inches. It contains all the ingredients necessary to a perfect soldering flux. No acids or other material to injure the insulation. Economical because of very small quantity necessary to prepare the joint. It is neither soft nor hard, but is tough and tenacious, bends without breaking, flattens without crushing.

List No. 9912 Crescent soldering stick.....Price each, \$0 24

ALLEN SOLDERING STICK.



A perfect soldering flux for all electrical wiring. It is put up regularly in round sticks, 6 inches long and 1 inch in diameter, in individual wooden boxes.

List No. 4732 Allen soldering stick.....Price each, \$0 30

BURNLEY'S SOLDERING PASTE.

The paste being in a soft condition, can be applied to the metal to be soldered in quantities just sufficient for the purpose. After an application of this paste the solder flows easily. The paste will not tarnish or corrode the metal.

List No. 9917 $\frac{1}{4}$ pound boxes.... ..\$0 25

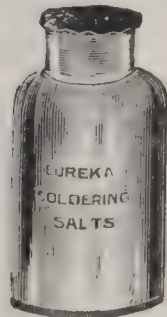
List No. 9918 $\frac{1}{2}$ pound boxes.....\$0 50

EUREKA SOLDERING SALTS.

This is the best soldering salts manufactured.

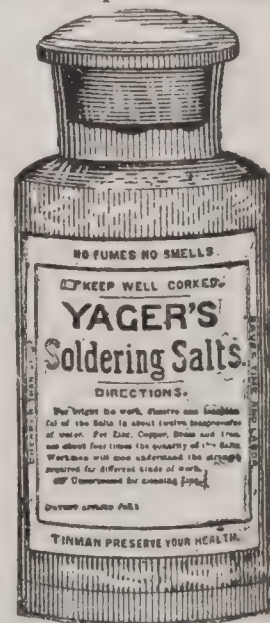
We can safely recommend it as we have used it continuously in our soldering department during the past five years.

List No.		Price.
4734	In $\frac{1}{2}$ pound bottles.....per pound,	\$0 50
4735	In 1 " " " " " " " " " "	45
4736	In 5 " " " " " " " " " "	40



YAGER'S SOLDERING SALTS.

List No.		Price.
9914	In $\frac{1}{2}$ pound bottles.....per pound,	\$1 00
9915	In 1 " " " " " " " " " "	95
9916	In 5 " " " " " " " " " "	90



FUSE WIRE AND STRIP.

Wire is Packed on Wooden Spools. Fuse Strip or Ribbon is Packed in Tin Boxes and is Furnished in Ten Inch Lengths Unless Otherwise Ordered.

List No.	Safe Carrying Capacity Amperes	Price Per Lb.	Price Per Foot Cents	Contains One Package	Best length for use and fusing currents for such length		Length Per Lb. Feet	Mils. Diam.
					Inches	Amps.		
9980	1/4	\$8 00	1	1 4-oz. sp'ls	1	1	.....	10
9981	1/2	3 50	1	4 2 "	1	1 1/2	.....	13
9982	3/4	2 75	1	4 4 "	1	2 1/4	.....	16
9983	1	1 10	1	4 4 "	1 1/4	3	1,025	25
9984	2	1 05	1	2 8 "	1 1/2	5	680	31
9985	3	1 00	1	2 8 "	1 3/4	7	445	35
9986	4	1 00	1	1 1-lb. spl.	1 3/4	9	290	39
9987	5	1 00	1 1/3	1 1 "	1 3/4	10	168	42
9988	6	85	1 1/2	1 1 "	2	12	145	46
9989	7	85	1 1/2	1 1 "	2	13	122	49
9990	8	80	1 3/4	1 1 "	2	15	105	52
9991	9	80	1 3/4	1 1 "	2	16	92	55
9992	10	80	1 3/4	1 1 "	2 1/4	17	82	61
9993	12	80	2	1 1 "	2 1/4	20	66	66
9994	14	80	2	1 1 "	2 1/4	23	56	68
9995	15	75	2 1/2	1 1 "	2 1/4	24	53	72
9996	16	75	2 1/2	1 1 "	2 1/2	25	47 1/2	77
9997	18	75	3	1 1 "	2 1/2	28	42	82
9998	20	75	3	1 1 "	2 1/2	30	37 1/2	94
9999	25	75	4	1 1 "	2 3/4	37	28 1/3	103
10000	30	75	5	1 1 "	2 3/4	43	23 3/8	113
10001	35	75	5	1 1 "	3	49	19 10-12	122
10002	40	75	6	1 1 "	3	56	17	129
10003	45	75	7	1 1 "	3	62	15	137
10004	50	75	8	1 1 "	3	69	13 7-12	158
10005	60	70	8	1 5 "	3 1/4	81	10 1/2	170
10006	70	70	9	1 5 "	3 1/4	93	9	182
10007	75	70	9	1 5 "	3 1/2	99	7 10-12	189
10008	80	70	10	1 5 "	3 1/2	106	7 1/2	212
10009	90	70	10	1 5 "	3 1/2	118	6	226
10010	100	70	12	1 5 "	4	129	5	

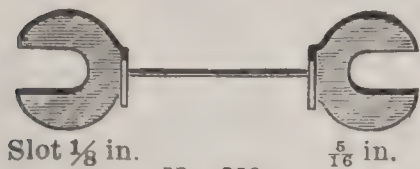
Foot rates will be charged for less than one package.

FUSE STRIP.

List No.	Safe Carrying Capacity Amperes	Price Per Lb.	Price Per Foot	Best length for use and fusing currents for such length		Weight Per Foot Ounces
				Inches	Amperes	
11360	50	\$0 65	\$0 08	3	69	1 1/8
11361	60	65	09	3 1/4	81	1 1/8
11362	70	65	10	3 1/4	93	1 3/4
11363	75	65	10	3 1/2	99	1 7/8
11364	80	65	12	3 1/2	106	2 1/8
11365	90	65	15	3 3/4	118	2 1/2
11366	100	65	18	4	129	3
11367	125	60	20	4 1/4	158	3 7/8
11368	150	60	25	4 1/2	187	4 7/8
11369	175	60	25	4 1/2	215	6
11370	200	60	30	4 3/4	243	6 7/8
11371	225	60	35	4 3/4	270	7 7/8
11372	250	60	40	4 3/4	298	8 7/8
11373	275	60	50	4 3/4	325	9 3/4
11374	300	60	60	5	351	10 3/4
11375	350	60	70	5 1/4	402	12 3/4
11376	400	60	80	5 1/4	450	14 3/8
11377	450	60	90	5 1/2	500	17
11378	500	60	1 00	6	550	20 1/2

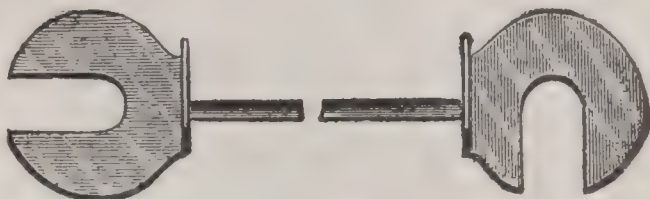
Orders for Fuse Strip smaller than 50 Amperes or larger than 500 Amperes, will be filled at a slight advance from prices quoted. Foot rates will be charged for less than one package.

COPPER TERMINAL FUSE LINKS.



No. 220.

Fits all rosettes and bug cut-outs taking a fuse 3/4 in. to 1 in.



No. 223.

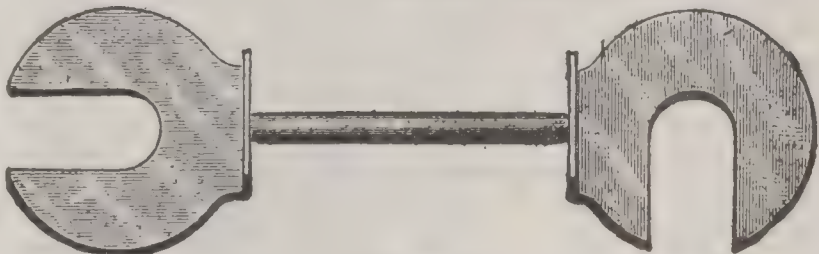
For main and branch blocks.



No. 222.

1/2 in.

For main and branch blocks.



No. 224.

1 1/8 in.

PRICE PER HUNDRED.

Amperes	Terminal No.	To 1 1/2 in. C. to C.	1 3/4 to 3 1/2 in. C. to C.	3 3/4 to 5 in. C. to C.
1 to 5	220	\$2 00	\$3 00	
5 to 30	222	3 00	4 00	\$5 00
35 to 100	223	3 00	5 00	6 00
35 to 100	224	4 00	6 00	8 00

STANDARD RAILWAY FUSES.



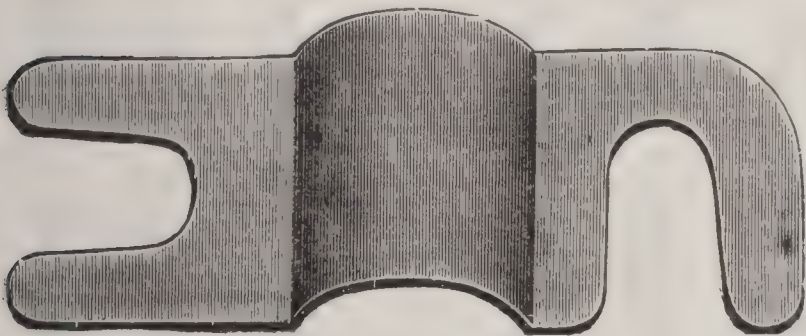
Slot 1/4 in.

No 212 Flat.

C. to C., 2 1/4 in.

Amperes.	Price Per 100.
50 to 100 round.....	\$3 50
50 to 100 flat.....	3 50
110 to 150 flat.....	4 20
160 to 200 flat.....	5 00

LARGE TERMINAL STRIP FUSES.



Slot 3/8 in.

No. 210.

PRICE PER HUNDRED.

Amperes	Terminal No.	2 1/2 in. C. to C.	3 1/4 to 5 in. C. to C.	5 1/4 to 8 in. C. to C.
35 to 100	210	\$10 00	\$15 00	\$20 00
110 to 200	214	12 00	18 00	24 00
210 to 400	214	15 00	22 50	30 00
410 to 600	214	20 00	30 00	40 00

No. 210-214 has 7/16 slot.

SPECIAL HEAVY STRIP FUSES.

Terminal No. 218 1 3/8 inch wide, slot 1/2 inch.

Terminal No. 219 2 1/8 inch wide, slot 5/8 inch.

PRICE PER HUNDRED.

Amperes.	Terminal No.	To 5 in. C. to C.	5 1/4 to 8 in. C. to C.
100 to 400	218 or 219.	\$25 00	\$40 00
410 to 600	219	40 00	60 00
610 to 800	219	55 00	80 00
810 to 1000	219	75 00	100 00

Fuses larger than 1000 amperes will be charged at a proportionate advance in price.

When ordering Fuse Links always state amperage required, style of terminals desired and distance from centre to centre.

"NOARK" ENCLOSED FUSES.

NOARK STANDARD.

250 VOLT INDICATING CARTRIDGE FUSES.

For use on all Circuits up to and including 250 volts.

**TYPE "A" POST SCREW
CONTACT STYLE.**

For 6 Ampere Bases.

List No.	Mfrs. No.	Amp. Capacity.	Centre to Centre.	Std. Pkg.	Price.
13740	2001	1	2 15-16 in.	100..	\$0 22
13741	2002	2	2 15-16 "	100..	22
13742	2003	3	2 15-16 "	100..	22
13743	2004	4	2 15-16 "	100..	22
13744	2005	5	2 15-16 "	100..	22
13745	2006	6	2 15-16 "	100..	22
13746	2007	8	2 15-16 "	100..	22

For 15 Ampere Bases.

13747	2008	10	3 7-16 in.	100..	24
13748	2009	12	3 7-16 "	100..	24
13749	2010	15	3 7-16 "	100..	24

For 30 Ampere Bases.

13750	2011	20	3 15-16 in.	100..	30
13751	2012	25	3 15-16 "	100..	30
13752	2013	30	3 15-16 "	100..	30

For 50 Ampere Bases.

13753	2014	35	4 3/4 in.	100..	34
13754	2015	40	4 3/4 "	100..	34
13755	2016	45	4 3/4 "	100..	34
13756	2017	50	4 3/4 "	100..	34

For 60-150 Ampere Bases.

13757	2018	60	5 3/8 in.	50..	50
13758	2019	70	5 3/8 "	50..	50
13759	2020	75	5 3/8 "	50..	50
13760	2021	80	5 3/8 "	50..	50
13761	2022	90	5 3/8 "	50..	50
13762	2023	100	5 3/8 "	50..	50
13763	2024	110	5 3/8 "	50..	64
13764	2025	125	5 3/8 "	50..	64
13765	2026	150	5 3/8 "	50..	64

**TYPE "A" FLUSH CONTACT
STYLE.**

Cast Terminals

For Panels and Switch Boards.

13766	2126	175	6 3/4 in.	25..	3 20
13767	2127	200	6 3/4 "	25..	3 20
13768	2128	225	6 3/4 "	25..	3 20
13769	2129	250	6 3/4 "	20..	3 80
13770	2130	275	6 3/4 "	20..	3 80
13771	2131	300	6 3/4 "	20..	3 80
13772	2132	325	6 3/4 "	20..	3 80
13773	2133	350	6 3/4 "	20..	3 80
13774	2134	375	6 3/4 "	20..	3 80
13775	2135	400	6 3/4 "	20..	3 80
13776	2136	450	8 3/8 "	10..	5 00
13777	2137	500	8 3/8 "	10..	5 00
13778	2138	550	8 3/8 "	10..	5 00
13779	2139	600	8 3/8 "	10..	5 00

250 Volt Panel Fuses.

13780	2201	2	2 1/8 in.	100..	24
13781	2202	3	2 1/8 "	100..	24
13782	2203	4	2 1/8 "	100..	24
13783	2204	5	2 1/8 "	100..	24
13784	2205	6	2 1/8 "	100..	24
13785	2206	8	2 1/8 "	100..	24
13786	2207	10	2 1/8 "	100..	24
13787	2208	12	2 1/8 "	100..	24
13788	2209	15	2 1/8 "	100..	24
13789	2210	20	2 1/8 "	100..	24
13790	2211	25	2 1/8 "	100..	24
13791	2212	30	2 1/8 "	100..	24

**TYPE "A" CENTER CONTACT
STYLE.**

For 175-400 Ampere Bases.

List No.	Mfrs. No.	Amp. Capacity.	Centre to Centre.	Std. Pkg.	Price.
13792	2027	175	6 3/4 in.	25..	\$1 60
13793	2028	200	6 3/4 "	25..	1 60
13794	2029	225	6 3/4 "	25..	1 60
13795	2030	250	6 3/4 "	20..	2 00
13796	2031	275	6 3/4 "	20..	2 00
13797	2032	300	6 3/4 "	20..	2 00
13798	2033	325	6 3/4 "	20..	2 00
13799	2034	350	6 3/4 "	20..	2 00
13800	2035	375	6 3/4 "	20..	2 00
13801	2036	400	6 3/4 "	20..	2 00
13802	2037	450	8 3/8 "	10..	3 05
13803	2038	500	8 3/8 "	10..	3 05
13804	2039	550	8 3/8 "	10..	3 05
13805	2040	600	8 3/8 "	10..	3 05

FLUSH CONTACT STYLE.

For Panels and Switch Boards.

13806	2100	1	2 15-16 in.	100..	22
13807	2101	2	2 15-16 "	100..	22
13808	2102	3	2 15-16 "	100..	22
13809	2103	4	2 15-16 "	100..	22
13810	2104	5	2 15-16 "	100..	22
13811	2105	6	2 15-16 "	100..	22
13812	2106	8	2 15-16 "	100..	22
13813	2107	10	3 7-16 "	100..	24
13814	2108	12	3 7-16 "	100..	24
13815	2109	15	3 7-16 "	100..	24
13816	2110	20	3 15-16 "	100..	30
13817	2111	25	3 15-16 "	100..	30
13818	2112	30	3 15-16 "	100..	30
13820	2113	35	4 3/4 in.	100..	34
13821	2114	40	4 3/4 "	100..	34
13822	2115	45	4 3/4 "	100..	34
13823	2116	50	4 3/4 "	100..	34
13824	2117	60	5 3/8 "	50..	50
13825	2118	70	5 3/8 "	50..	50
13826	2119	75	5 3/8 "	50..	50
13827	2120	80	5 3/8 "	50..	50
13828	2121	90	5 3/8 "	50..	50
13829	2122	100	5 3/8 "	50..	50
13830	2123	110	5 3/8 "	50..	64
13831	2124	125	5 3/8 "	50..	64
13832	2125	150	5 3/8 "	50..	64

110 Volt Panel Fuses.

13833	2213	35	2 1/8 in.	100..	34
13834	2214	40	2 1/8 "	100..	34
13835	2215	45	2 1/8 "	100..	34
13836	2216	50	2 1/8 "	100..	34
13837	2217	60	3 1/8 "	100..	42
13838	2218	70	3 1/8 "	100..	42
13839	2219	75	3 1/8 "	100..	42
13840	2220	80	3 1/8 "	100..	42
13841	2221	90	3 1/8 "	100..	42
13842	2222	100	3 1/8 "	100..	42

250 Volt Midget Fuses for Panel
Boards.

13843	2252	2	2 1/4 in.	100..	20
13844	2253	3	2 1/4 "	100..	20
13845	2254	4	2 1/4 "	100..	20
13846	2255	5	2 1/4 "	100..	20
13847	2256	6	2 1/4 "	100..	20
13848	2257	8	2 1/4 "	100..	20
13849	2258	10	2 1/4 "	100..	20
13850	2259	12	2 1/4 "	100..	20
13851	2260	15	2 1/4 "	100..	20

"NOARK" ENCLOSED FUSES.**NOARK STANDARD.****250 VOLT INDICATING CARTRIDGE FUSES.**

For use on all Circuits up to and including 250 Volts.

**TYPE "B" FERRULE CONTACT
SPRING CLIP STYLE.****For 1-8 Ampere Bases.**

List No.	Mfrs. No.	Amp. Capacity.	Centre to Centre.	Std. Pkg.	Price.
13855	2300	1	1 13-16 in.	100..	\$0 20
13856	2301	2	1 13-16 "	100..	20
13857	2302	3	1 13-16 "	100..	20
13858	2303	4	1 13-16 "	100..	20
13859	2304	5	1 13-16 "	100..	20
13860	2305	6	1 13-16 "	100..	20
13861	2306	8	1 13-16 "	100..	20

For 10-15 Ampere Bases.

13862	2307	10	2 1/8 in.	100..	22
13863	2308	12	2 1/8 "	100..	22
13864	2309	15	2 1/8 "	100..	22

For 20-30 Ampere Bases.

13865	2310	20	2 9-16 in.	100..	27
13866	2311	25	2 9-16 "	100..	27
13867	2312	30	2 9-16 "	100..	27

For 35-50 Ampere Bases.

13868	2313	35	2 7/8 in.	100..	28
13869	2314	40	2 7/8 "	100..	28
13870	2315	45	2 7/8 "	100..	28
13871	2316	50	2 7/8 "	100..	28

**For use in 1-30 Ampere Branch
Blocks.**

13872	2326	1	2 9-16 in.	100..	27
13873	2327	2	2 9-16 "	100..	27
13874	2328	3	2 9-16 "	100..	27
13875	2329	4	2 9-16 "	100..	27
13876	2330	5	2 9-16 "	100..	27
13877	2331	6	2 9-16 "	100..	27
13878	2332	8	2 9-16 "	100..	27
13879	2333	10	2 9-16 "	100..	27
13880	2334	12	2 9-16 "	100..	27
13881	2335	15	2 9-16 "	100..	27
13882	2336	20	2 9-16 "	100..	27
13883	2337	25	2 9-16 "	100..	27
13884	2338	30	2 9-16 "	100..	27

G. E. Dimension Fuses.**For use in G. E., D. and W., or
Bryant Blocks. 1-30 Amperes, 35-
60 Amperes, 250 Volts.**

13885	2380	2	1 7/8 in.	100..	20
13886	2381	3	1 7/8 "	100..	20
13887	2382	4	1 7/8 "	100..	20
13888	2383	5	1 7/8 "	100..	20
13889	2384	6	1 7/8 "	100..	20
13890	2385	8	1 7/8 "	100..	20
13891	2386	10	1 7/8 "	100..	20
13892	2387	12	1 7/8 "	100..	20
13893	2388	15	1 7/8 "	100..	20
13894	2389	20	1 7/8 "	100..	20
13895	2390	25	1 7/8 "	100..	20
13896	2391	30	1 7/8 "	100..	20
13897	2392	35	3 in.	100..	30
13898	2393	40	3 "	100..	30
13899	2394	45	3 "	100..	30
13900	2395	50	3 "	100..	30
13901	2396	55	3 "	100..	30
13902	2397	60	3 "	100..	30

**TYPE "B" FERRULE CONTACT
SPRING CLIP STYLE.****Midget Fuses.****For use on Panel or Switch Boards.**

List No.	Mfrs. No.	Amp. Capacity	Centre to Centre.	Std. Pkg.	Price.
13903	2350	2	1 in.	100..	\$0 15
13904	2351	3	1 "	100..	15
13905	2352	4	1 "	100..	15
13906	2353	5	1 "	100..	15
13907	2354	6	1 "	100..	15
13908	2355	8	1 "	100..	15
13909	2356	10	1 "	100..	15
13910	2357	12	1 "	100..	15
13911	2358	15	1 "	100..	15

TYPE "B" SPRING CLIP STYLE.**For 30 Ampere Fuse Plugs.**

13912	2364	2	1 3/4 in.	100..	17
13913	2365	3	1 3/4 "	100..	17
13914	2366	4	1 3/4 "	100..	17
13915	2367	5	1 3/4 "	100..	17
13916	2368	6	1 3/4 "	100..	17
13917	2369	8	1 3/4 "	100..	17
13918	2370	10	1 3/4 "	100..	17
13919	2271	12	1 3/4 "	100..	17
13920	2372	15	1 3/4 "	100..	17
13921	2373	18	1 3/4 "	100..	17
13922	2374	20	1 3/4 "	100..	17
13923	2375	25	1 3/4 "	100..	17
13924	2376	30	1 3/4 "	100..	17

TYPE "C" FLAT CONTACT**Stamped Terminal Switch Style.****For use on Type "C" Blocks.**

13925	2401	1	2 7/8 in.	100..	42
13926	2402	2	2 7/8 "	100..	42
13927	2403	3	2 7/8 "	100..	42
13928	2404	4	2 7/8 "	100..	42
13929	2405	5	2 7/8 "	100..	42
13930	2406	6	2 7/8 "	100..	42
13931	2407	8	2 7/8 "	100..	42
13932	2408	10	2 7/8 "	100..	42
13933	2409	12	2 7/8 "	100..	42
13934	2410	15	2 7/8 "	100..	42
13935	2411	20	2 7/8 "	100..	42
13936	2412	25	2 7/8 "	100..	42
13937	2413	30	2 7/8 "	100..	42
13938	2414	35	2 7/8 "	100..	42
13939	2415	40	2 7/8 "	100..	42
13940	2416	45	2 7/8 "	100..	42
13941	2417	50	2 7/8 "	100..	42
13942	2418	60	3 1/2 "	50..	60
13943	2419	70	3 1/2 "	50..	60
13944	2420	75	3 1/2 "	50..	60
13945	2421	80	3 1/2 "	50..	60
13946	2422	90	3 1/2 "	50..	60
13947	2423	100	3 1/2 "	50..	60

"NOARK" ENCLOSED FUSES.

NOARK STANDARD.

250 VOLT INDICATING CARTRIDGE FUSES.

For use on all Circuits up to and including 250 Volts.

**TYPE "C" CAST TERMINAL CAP
FLAT CONTACT SWITCH STYLE.**

For use with Type "C" Blocks.

List No.	Mfrs. No.	Ampere Capacity	Centre to Centre.	Std. Pkg.	Price.
13951	2425	110	3 7/8 in.	25..	\$2 00
13952	2426	125	3 7/8 "	25..	2 00
13953	2427	150	3 7/8 "	25..	2 00
13954	2428	175	3 7/8 "	25..	2 80
13955	2429	200	3 7/8 "	25..	2 80
13956	2430	225	3 7/8 "	25..	2 80
13957	2431	250	3 15-16 in.	20..	4 00
13958	2432	275	3 15-16 "	20..	4 00
13959	2433	300	3 15-16 "	20..	4 00
13960	2434	325	3 15-16 "	20..	4 00
13961	2435	350	3 15-16 "	20..	4 00
13962	2436	375	3 15-16 "	20..	4 00
13963	2437	400	3 15-16 "	20..	4 00
13964	2438	450	4 13-16 "	10..	5 80
13965	2439	500	4 13-16 "	10..	5 80
13966	2440	550	4 13-16 "	10..	5 80
13967	2441	600	4 13-16 "	10..	5 80

**TYPE "D" DOUBLE KNIFE BLADE
CONTACT STYLE.**

For use with Type "D" Blocks.

List No.	Mfrs. No.	Ampere Capacity	Centre to Centre.	Std. Pkg.	Price.
13997	2451	110	3 in.	25..	\$0 76
13998	2452	125	3 "	25..	76
13999	2453	150	3 "	25..	76
14000	2454	175	3 5/8 in.	25..	1 40
14001	2455	200	3 5/8 "	25..	1 40
14002	2456	225	3 5/8 "	25..	1 40
14003	2457	250	3 3-16 in.	20..	2 40
14004	2458	275	3 3-16 "	20..	2 40
14005	2459	300	3 3-16 "	20..	2 40
14006	2460	325	3 3-16 "	20..	2 40
14007	2461	350	3 3-16 "	20..	2 40
14008	2462	375	3 3-16 "	20..	2 40
14009	2463	400	3 3-16 "	20..	2 40
14010	2464	450	4 3/8 in.	10..	4 00
14011	2465	500	4 3/8 "	10..	4 00
14012	2466	550	4 3/8 "	10..	4 00
14013	2467	600	4 3/8 "	10..	4 00

500 VOLT INDICATING CARTRIDGE FUSES.

For use on all Circuits from 300 to 500 Volts.

**TYPE "A" POST SCREW CON-
TACT STYLE.**For use with Type "A" 500 Volt
Blocks.

Panels and Switch Boards.

For 1-10 Ampere Bases.

List No.	Mfrs. No.	Ampere Capacity	Centre to Centre.	Std. Pkg.	Price.
13968	4001	1	5 3/8 in.	100..	\$0 29
13969	4002	2	5 3/8 "	100..	29
13970	4003	3	5 3/8 "	100..	29
13971	4004	4	5 3/8 "	100..	29
13972	4005	5	5 3/8 "	100..	29
13973	4006	6	5 3/8 "	100..	29
13974	4007	8	5 3/8 "	100..	29
13975	4008	10	5 3/8 "	100..	29

For 12-25 Ampere Bases.

List No.	Mfrs. No.	Ampere Capacity	Centre to Centre.	Std. Pkg.	Price.
13976	4009	12	6 in.	100..	32
13977	4010	15	6 "	100..	32
13978	4011	18	6 "	100..	32
13979	4012	20	6 "	100..	32
13980	4013	25	6 "	100..	32

For 30-50 Ampere Bases.

List No.	Mfrs. No.	Ampere Capacity	Centre to Centre.	Std. Pkg.	Price.
13981	4014	30	6 3/4 in.	100..	38
13982	4015	35	6 3/4 "	100..	38
13983	4016	40	6 3/4 "	100..	38
13984	4017	45	6 3/4 "	100..	38
13985	4018	50	6 3/4 "	100..	38

For 60-150 Ampere Bases.

List No.	Mfrs. No.	Ampere Capacity	Centre to Centre.	Std. Pkg.	Price.
13986	4019	60	7 1/2 "	50..	56
13987	4020	70	7 1/2 "	50..	56
13988	4021	75	7 1/2 "	50..	56
13989	4022	80	7 1/2 "	50..	56
13990	4023	90	7 1/2 "	50..	56
13991	4024	100	7 1/2 "	50..	56
13992	4025	110	7 1/2 "	50..	72
13993	4026	125	7 1/2 "	50..	72
13994	4027	150	7 1/2 "	50..	72

**TYPE "A" POST CENTER CON-
TACT STYLE.**For use with Type "A" Center
Contact Blocks.

For 175-400 Ampere Bases.

List No.	Mfrs. No.	Ampere Capacity	Centre to Centre.	Std. Pkg.	Price.
13995	4028	175	8 1/4 in.	25..	\$1 80
13996	4029	200	8 1/4 "	25..	1 80
14014	4030	225	8 1/4 "	25..	1 80
14015	4031	250	8 1/4 "	20..	2 40
14016	4032	275	8 1/4 "	20..	2 40
14017	4033	300	8 1/4 "	20..	2 40
14018	4034	325	8 1/4 "	20..	2 40
14019	4035	350	8 1/4 "	20..	2 40
14020	4036	375	8 1/4 "	20..	2 40
14021	4037	400	8 1/4 "	20..	2 40

**TYPE "A" FLUSH TERMINAL
SCREW CONTACT STYLE.**

For use on Panel or Switch Boards.

List No.	Mfrs. No.	Ampere Capacity	Centre to Centre.	Std. Pkg.	Price.
14026	4100	1	5 3/8 in.	100..	29
14027	4101	2	5 3/8 "	100..	29
14028	4102	3	5 3/8 "	100..	29
14029	4103	4	5 3/8 "	100..	29
14030	4104	5	5 3/8 "	100..	29
14031	4105	6	5 3/8 "	100..	29
14032	4106	8	5 3/8 "	100..	29
14033	4107	10	5 3/8 "	100..	29
14034	4108	12	6 in.	100..	32
14035	4109	15	6 "	100..	32
14036	4110	18	6 "	100..	32
14037	4111	20	6 "	100..	32
14038	4112	25	6 "	100..	32
14039	4113	30	6 3/4 in.	100..	38
14040	4114	35	6 3/4 "	100..	38
14041	4115	40	6 3/4 "	100..	38
14042	4116	45	6 3/4 "	100..	38
14043	4117	50	6 3/4 "	100..	38
14044	4118	60	7 1/2 "	50..	56
14045	4119	70	7 1/2 "	50..	56
14046	4120	75	7 1/2 "	50..	56
14047	4121	80	7 1/2 "	50..	56
14048	4122	90	7 1/2 "	50..	56
14049	4123	100	7 1/2 "	50..	56
14050	4124	110	7 1/2 "	50..	72
14051	4125	125	7 1/2 "	50..	72
14052	4126	150	7 1/2 "	50..	72

NOARK ENCLOSED FUSES.

Noark Standard.

500 Volt Indicating Cartridge Fuse.

For Use on all Circuits from 300 to 500 volts.

Type A Post Center Contact Style.

Tor use with Type A Center Contact Blocks.
For 175-400 Ampere Bases.

List No.	Mfrs. No.	Ampere Capacity.	Center to Center.	Std. Pkg.	Price.
14055	4028	175	8¼ In.	25	\$1 80
14056	4029	200	"	25	1 80
14057	4030	225	"	25	1 80
14058	4031	250	"	20	2 40
14059	4032	275	"	20	2 40
14060	4033	300	"	20	2 40
14061	4034	325	"	20	2 40
14062	4035	350	"	20	2 40
14063	4036	375	"	20	2 40
14064	4037	400	"	20	2 40

For 450-600 Ampere Bases.

14065	4037	450	11 13/16 In.	10	\$4 40
14066	4039	500	"	10	4 40
14067	4040	550	"	10	4 40
14068	4041	600	"	10	4 40

Type A Flush Terminal Screw Contact Style. [Cast Caps.]

For use on Panel or Switch Boards.

14069	4127	175	8¼ In.	25	\$3 60
14070	4128	200	"	25	3 60
14071	4129	225	"	25	3 60
14072	4130	250	"	20	4 40
14073	4131	275	"	20	4 40
14074	4132	300	"	20	4 40
14075	4133	325	"	20	4 40
14076	4134	350	"	20	4 40
14077	4135	375	"	20	4 40
14078	4136	400	"	20	4 40
14079	4137	450	11 13/16 In.	10	6 20
14080	4138	500	"	10	6 20
14081	4139	550	"	10	6 20
14082	4140	600	"	10	6 20

Type B Ferrule Contact.

Spring Clip Style.
For Use with Type B. Blocks.
For 1 to 10 Ampere Bases.

14083	4201	1	4 3/16 In.	100	\$0 24
14084	4202	2	"	100	24
14085	4203	3	"	100	24
14086	4204	4	"	100	24
14087	4205	5	"	100	24
14088	4206	6	"	100	24
14089	4207	8	"	100	24
14090	4208	10	"	100	24

For 12 to 25 Ampere Bases.

14091	4209	12	4½ In.	100	\$0 30
14092	4210	15	"	100	30
14093	4211	18	"	100	30
14094	4212	20	"	100	30
14095	4213	25	"	100	30

For 30 to 50 Ampere Bases.

14096	4214	30	4¾ In.	100	\$0 36
14097	4215	35	"	100	36
14098	4216	40	"	100	36
14099	4217	45	"	100	36
14100	4218	50	"	100	36

Type C Flat Contact.

Stamped Terminal Switch Style.
For Use with Type C Blocks.

For 1-100 Ampere Base.

List No.	Mfrs. No.	Ampere Capacity.	Center to Center.	Std. Pkg.	Price.
14101	4300	1	5½ In.	50	\$0 68
14102	4301	2	"	50	68
14103	4302	3	"	50	68
14104	4303	4	"	50	68
14105	4304	5	"	50	68
14106	4305	6	"	50	68
14107	4306	8	"	50	68
14108	4307	10	"	50	68
14109	4308	12	"	50	68
14110	4309	15	"	50	68
14111	4310	18	"	50	68
14112	4311	20	"	50	68
14113	4312	25	"	50	68
14114	4313	30	"	50	68
14115	4314	35	"	50	68
14116	4315	40	"	50	68
14117	4316	45	"	50	68
14118	4317	50	"	50	68
14119	4318	60	"	50	68
14120	4319	70	"	50	68
14121	4320	75	"	50	68
14122	4321	80	"	50	68
14123	4322	90	"	50	68
14124	4323	100	"	50	68

Type C Cast Terminal Cap.

Flat Contact Switch Style.
For Use with Type C Blocks.
For 110 to 125 Ampere Base.

14125	4324	110	5 9/16 In.	25	\$2 00
14126	4325	125	"	25	2 00
14127	4326	150	"	25	2 00

For 110-225 Ampere Base.

14128	4327	175	5 9/16 In.	25	\$3 00
14129	4328	200	"	25	3 00
14130	4329	225	"	25	3 00

For 250-400 Ampere Base.

14131	4330	250	5 1/16 In.	10	\$5 00
14132	4331	275	"	10	5 00
14133	4332	300	"	10	5 00
14134	4333	325	"	10	5 00
14135	4334	350	"	10	5 00
14136	4335	375	"	10	5 00
14137	4336	400	"	10	5 00

For 450-600 Ampere Base.

14138	4337	450	8¼ In.	10	\$6 80
14139	4338	500	"	10	6 80
14140	4339	550	"	10	6 80
14141	4340	600	"	10	6 80

NOARK ENCLOSED FUSES AND BLOCKS.

Noark Standard

2500 Volt Indicating Cartridge Fuse.

Type A Post Screw Contact Style.

For Use on Panel or Switch Boards or 1-30
Ampere Type A Blocks.

List No.	Mfrs. No.	Ampere Capacity.	Center to Center.	Std. Pkg.	Price.
14144	6000	1	6 1/2	100	\$0 36
14145	6001	2	"	100	36
14146	6002	3	"	100	36
14147	6003	4	"	100	36
14148	6004	5	"	100	36
14149	6005	6	"	100	36
14150	6006	8	"	100	36
14151	6007	10	"	100	38
14152	6008	12	"	100	39
14153	6009	15	"	100	42
14154	6010	16	"	100	42
14155	6011	18	"	100	42
14156	6012	20	"	100	42
14157	6013	25	"	100	42
14158	6014	30	"	100	42

For 35 to 50 Ampere Blocks.

14159	6015	35	7 1/4	100	\$0 72
14160	6016	40	"	100	72
14161	6017	45	"	100	72
14162	6018	50	"	100	72

For 60 to 100 Ampere Blocks.

14163	6019	60	8 1/4	50	\$1 20
14164	6020	70	"	50	1 20
14165	6021	75	"	50	1 20
14166	6022	80	"	50	1 20
14167	6023	90	"	50	1 20
14168	6024	100	"	50	1 20

For 110-150 Ampere Blocks, 1500 Volts Only.

14169	6025	110	8 1/4	50	\$1 20
14170	6026	125	"	50	1 20
14171	6027	150	"	50	1 20

Type A Blocks for Above Fuses, 2500 Volts.

List No.	Mfrs. No.	Ampere Capacity.	Center to Center.	Std. Pkg.	Price.
14172	8001	1 to 3 Amp. Single Pole,	50	50	\$0 88
14173	8002	35 to 50 "	"	50	1 20
14174	8003	60 to 100 "	"	50	1 40

Type A Blocks for Above Fuses.
1500 Volts Only.

14175	8004	110-150 Single Pole.....	50	50	\$1 40
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Type B Fuses, Ferrule Contact
Spring Clip Style.

For Use With Type B Blocks.

For 1 to 30 Ampere Blocks or on Panel or
Switch Boards.

List No.	Mfrs. No.	Ampere Capacity.	Center to Center.	Std. Pkg.	Price.
14176	6100	1	5 in.	100	\$0 34
14177	6101	2	5 "	100	34
14178	6102	3	5 "	100	34
14179	6103	4	5 "	100	34
14180	6104	5	5 "	100	34
14181	6105	6	6 "	100	34
14182	6106	8	5 "	100	34
14183	6107	10	5 "	100	34
14184	6108	12	5 "	100	34
14185	6109	15	5 "	100	40
14186	6110	16	5 "	100	40
14187	6111	18	5 "	100	40
14188	6112	20	5 "	100	40
14189	6113	25	5 "	100	40
14190	6114	30	5 "	100	40

Type B Fuses—Continued.

For 35 to 50 Ampere Blocks.

List No.	Mfrs. No.	Ampere Capacity.	Center to Center.	Std. Pkg.	Price.
14191	6115	35	5 3/8 in.	50	\$0 50
14192	6116	40	"	50	50
14193	6117	45	"	50	50
14194	6118	50	"	50	50

Type B Fuse Blocks.

For Above Fuses, 2500 Volts.

List No.	Mfrs. No.	Ampere Capacity.	Center to Center.	Std. Pkg.	Price.
14195	8010	1 to 12 Amp. Single Pole,	50	50	\$0 92
14196	8011	15 to 30 "	"	50	96
14197	8012	35 to 50 "	"	50	1 28

Type C Fuses, Flat Contact Stamped
Terminal Switch Style.

For Use on Panel or Switch Boards or 1-30
Ampere Type C Blocks.

List No.	Mfrs. No.	Ampere Capacity.	Center to Center.	Std. Pkg.	Price.
14198	6200	1	5 1/2 in.	50	\$0 62
14199	6201	2	"	50	62
14200	6202	3	"	50	62
14201	6203	4	"	50	62
14202	6204	5	"	50	62
14203	6205	6	"	50	62
14204	6206	8	"	50	62
14205	6207	10	"	50	62
14206	6208	12	"	50	62
14207	6209	15	"	50	62
14208	6210	16	"	50	62
14209	6211	18	"	50	62
14210	6212	20	"	50	62
14211	6213	25	"	50	62
14212	6214	30	"	50	62

For 35 to 50 Amp. Blocks.

14214	6215	35	6 1/2 in.	50	\$0 92
14215	6216	40	"	50	92
14216	6217	45	"	50	92
14217	6218	50	"	50	92

For 60 to 100 Amp. Blocks.

14218	6219	60	6 3/4 in.	50	\$2 30
14219	6220	70	"	50	2 30
14220	6221	75	"	50	2 30
14221	6222	80	"	50	2 30
14222	6223	90	"	50	2 30
14223	6224	100	"	50	2 30

Type C Blocks for Above Fuses,
2500 Volts.

List No.	Mfrs. No.	Ampere Capacity.	Center to Center.	Std. Pkg.	Price.
14224	8024	1 to 30 Amp. Single Pole,	50	50	\$1 85
14225	8025	35 to 50 "	"	50	1 90
14226	8026	60 to 100 "	"	25	3 40

Type C Fuse for 1500 Volts or Under.

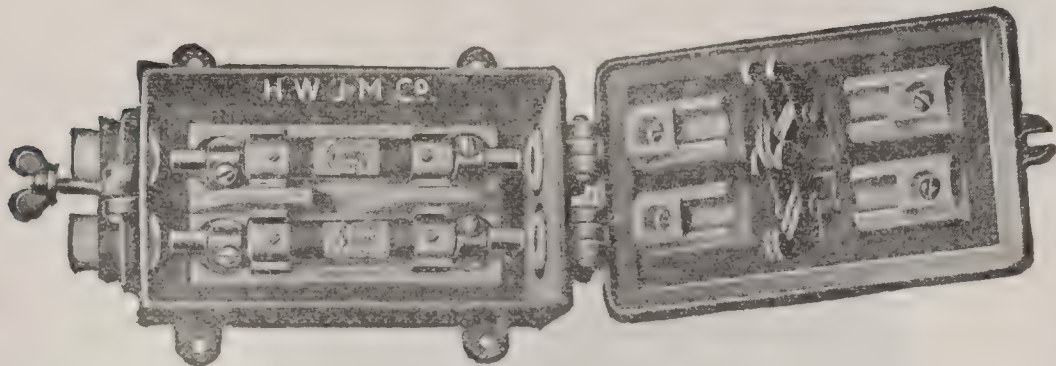
List No.	Mfrs. No.	Ampere Capacity.	Center to Center.	Std. Pkg.	Price.
14227	6225	110	6 3/4 in.	25	\$2 80
14228	6226	125	"	25	2 80
14229	6227	150	"	25	2 80
14230	6228	160	"	25	2 80
14231	6229	175	"	25	2 80
14232	6230	200	"	25	2 80

Type C Blocks for Above 1500 Volt Fuses.

List No.	Mfrs. No.	Ampere Capacity.	Center to Center.	Std. Pkg.	Price.
14233	8030	110 to 200 Amp. Single Pole,	25	25	\$3 40

NOARK SERVICE BOXES.

Noark Standard.
250 Volt Type C.



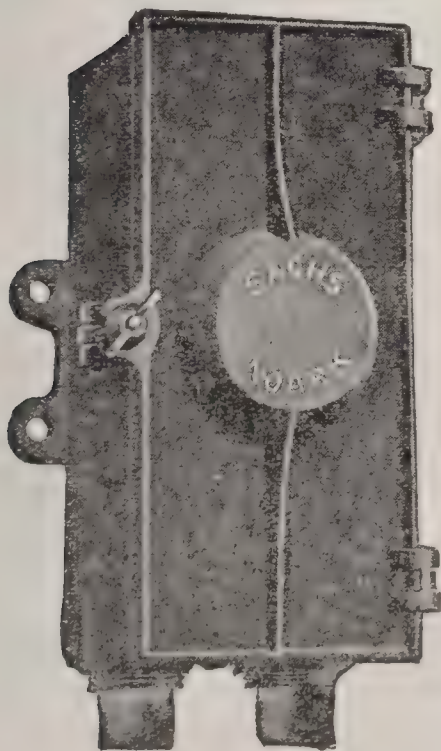
For use as a service switch and fuse box the "Noark" Standard two and three pole service boxes cannot be surpassed. They are exceedingly compact, neat and well constructed, capable of standing all the ordinary service abuse that a device of this type is subject to.

List No.	Mfrs. No.	Amp.	Poles.	Size	Std. Pkg.	Price.
14235	3630	1-50	2	7 1/4 x 4 1/4 x 3 1/16	25	\$ 7 80
14236	3631	1-50	3	7 1/4 x 5 3/4 x 3 1/16	25	10 00
14237	3632	60-100	2	8 1/8 x 4 13/16 x 3 3/8	25	9 40
14238	3633	60-100	3	8 1/8 x 6 5/8 x 3 3/8	25	12 40
14239	3634	110-225	2	9 1/8 x 7 1/8 x 4 7/16	20	18 00
14240	3635	110-225	3	9 1/8 x 10 x 4 7/16	20	25 20
14241	3636	250-400	2	10 1/4 x 8 1/8 x 4 29/32	20	29 00
14242	3637	250-400	3	10 1/4 x 11 3/4 x 4 29/32	20	41 00
14243	3638	450-600	2	14 x 9 1/2 x 5 15/16	10	44 00
14244	3639	450-600	3	14 x 13 1/2 x 5 15/16	10	56 00

Noark Service Boxes.
500 Volt Type C.

14245	5420	1-100	2	10 5/8 x 6 3/4 x 3 13/16	25	\$15 20
14246	5421	1-100	3	10 5/8 x 9 3/4 x 3 13/16	25	21 00
14247	5422	110-225	2	11 3/4 x 7 1/4 x 4 5/16	20	19 40
14248	5423	110-225	3	11 3/4 x 10 1/4 x 4 5/16	20	27 00

Above prices do not include fuses.



Noark Single Pole Porcelain Lined Service Boxes.
2500 Volts 1-50 Amperes.
Type C.

In designing these boxes, the first consideration has been to obtain maximum insulation for the current carrying parts, and to protect the insulation from weather conditions. The external casing consists of a cast iron box having hinged rubber-gasketed cover. Inside of the iron box is a porcelain box provided with a porcelain cover and fuse holder seating on a rubber gasket.

List No.	Mfrs. No.	Amps.	Poles.	Size.	Std. Pkg.	Price.
14249	8810	1-30	1	9 7/16 x 3 7/8 x 3 13/16	25	\$ 8 00
14250	8811	35-50	1	10 3/8 x 4 3/8 x 4 5/16	25	10 40

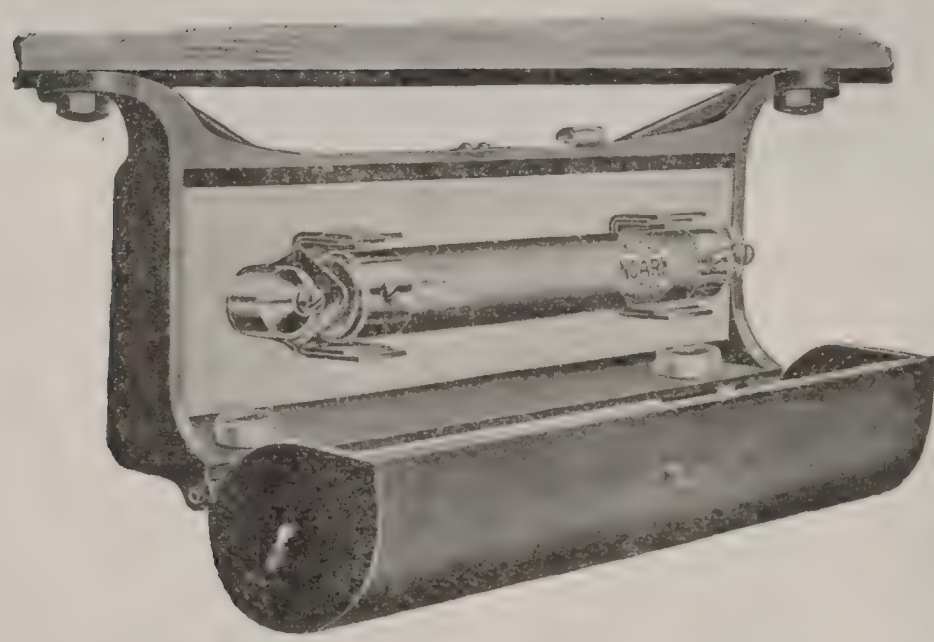
Above prices do not include fuses.

NOARK CAR FUSE BOXES.

Noark Standard.

500 Volts.

SINGLE POLE.



Complete "Noark" Car Cut-out Equipment, 500 Volts, 60-150 Amperes, Type "A."

For use on electric railway cars, we furnish a complete cut-out box equipment, consisting of "Noark" fuse and slate block, firmly fixed and protected in a solid, well japanned cast iron box, as shown. This box has a hinged cover and spring snap catch, making the interior readily accessible, and is provided with lugs for fastening to the car body. The advantages of this equipment will be appreciated.

Some of the largest roads are entirely equipped with these cut-outs and their use has given perfect satisfaction. The boxes can be fitted with either type "A," or "C" blocks as noted.

This cut-out equipment unquestionably furnishes an ideal protective appliance for street railway service, and will save many times its cost in one year's operation.

It has been demonstrated by actual test and service that better and safer protection is obtained by the use of a "Noark" equipment of one-half the current rating required in ordinary fuses or circuit breakers for the same service.

The boxes are fitted with Standard blocks as follows:

60 to 150 Amperes, Type "A"		
60 to 100	"	" "C"
175 to 225	"	" "C"
250 to 400	"	" "C"

They take Standard Fuses in ampere ratings as per standard list.

Car Fuse Boxes for Type A Fuses.

List No.	Mfrs. No.	Ampere Capacity.	Size.	Lug Centers.	Std. Pkg.	Price.
14252	5430	60-150	10 x 3 3/16 x 3 5/8 in.	12 1/8 in.	25	\$ 4 20

Car Fuse Boxes for Type C Fuses.

14253	5435	1-100	10 x 3 3/16 x 3 5/8	12 1/8	25	\$ 4 60
14254	5436	110-225	10 3/4 x 4 1/4 x 4 5/8	12 3/4	20	8 20
14255	5437	250-400	11 7/8 x 5 1/8 x 5 13/16	13 11/16	20	12 80

250 VOLT D. & W. INDICATING CARTRIDGE FUSES.

For Use on all Circuits up to and including 250 Volts.

D. and W. Standard.

Type A or Screw Clamp Contact.

For use in 6 Amp. Type A Block.

List No.	Mfrs. No.	Amp. Capacity.	Center to Center.	Std. Pkg.	Price.
5714	203	3	2 9/16 in.	100	\$0 24
5715	204	4	"	100	24
5716	205	5	"	100	24
5717	206	6	"	100	24

For use in 15 Amp. Type A Block.

5718	208	8	3 1/16 in.	100	27
5719	210	10	"	100	27
5720	212	12	"	100	27
5721	215	15	"	100	27

For use in 30 Amp. Type A Block.

5722	218	18	3 13/16 in.	100	31
5723	220	20	"	100	31
5724	225	25	"	100	31
5725	230	30	"	100	31

For use in 60 Amp. Type A Block.

5726	235	35	4 9/16 in.	100	36
5727	240	40	"	100	36
5728	245	45	"	100	36
5729	250	50	"	100	36
5730	260	60	"	100	36

For use in 120 Amp. Type A Blocks.

5744	265	65	5 13/16 in.	50	50
5745	270	70	"	50	50
5732	275	75	"	50	50
5733	280	80	"	50	50
5734	290	90	"	50	50
5735	300	100	"	50	50
5736	310	110	"	50	50
5746	325	120	"	50	50

For use in 300 Amp. Type E. Block.

10470	330	150	6 3/4 in.	25	1 60
10471	335	175	"	25	1 60
10472	340	200	"	25	1 60
10473	345	225	"	25	1 60
10474	350	250	"	25	1 60
10475	355	275	"	25	1 60
10476	360	300	"	25	1 60

For use in 500 Amp. Block.

10477	365	350	6 3/4 in.	10	2 00
10478	370	400	"	10	2 00
10479	375	450	"	10	2 00
10480	380	500	"	10	2 00

Type C or Spring Clip Contact.

For use in 30 Amp. Type C Block.

List No.	Mfrs. No.	Amp. Capacity.	Length Over all.	Std. Pkg.	Price.
5675	66326	3	2 9/16 in.	100	\$0 20
5676	66327	4	"	100	20
5677	66328	5	"	100	20
5678	66329	6	"	100	20
5679	66330	8	"	100	20
5680	66331	10	"	100	20
5681	66333	12	"	100	20
5682	66335	15	"	100	20
5683	66336	18	"	100	20
5684	66337	20	"	100	20
5685	66339	25	"	100	20
5686	66341	30	"	100	20

Type C Fuses—Continued.

For use in 60 Amp. Type C Block.

List No.	Mfrs. No.	Amp. Capacity.	Length Over all.	Std. Pkg.	Price.
5687	66343	35	3 5/8 in.	100	\$0 30
5688	66345	40	"	100	30
5689	66347	45	"	100	30
5690	66349	50	"	100	30
5691	66351	55	"	100	30
5692	66353	60	"	100	30

For use in 125 Amp. Type C Block.

5693	66354	65	4 1/2 in.	50	60
5694	66355	70	"	50	60
5713	66356	75	"	50	60
5695	66357	80	"	50	60
5696	66359	90	"	50	60
5697	66361	100	"	50	60
5698	66363	110	"	50	60
5699	66365	120	"	50	60
10390	66367	125	"	50	60

For use in 300 Amp. Type C Block

10391	66369	150	6 in.	25	
10392	66371	175	"	25	
10393	66373	200	"	25	5 00
10394	66375	225	"	25	5 00
10395	66377	250	"	25	5 00
10396	66379	275	"	25	5 00
10397	66381	300	"	25	5 00

For use in 500 Amp. Type C Block.

10398	66383	350	6 in.	10	6 00
10399	66385	400	"	10	6 00
10400	66387	450	"	10	6 00
10401	66389	500	"	10	6 00

250 Volt Baby Cartridge Fuses.

For Panels or Switch Boards.

Type A or Screw Clamp Contact.

List No.	Mfrs. No.	Amp. Capacity.	Center to Center.	Std. Pkg.	Price.
14258	1703	3	2 1/4 in.	100	\$0 20
14259	1704	4	"	100	20
14260	1705	5	"	100	20
14261	1706	6	"	100	20
14262	1708	8	"	100	20
14263	1710	10	"	100	20
14264	1712	12	"	100	20
14265	1715	15	"	100	20

250 Volt Baby Cartridge Fuses.

Type C or Spring Clip Contact.

List No.	Mfrs. No.	Amp. Capacity.	Center to Center.	Std. Pkg.	Price.
10410	1723	3	1 1/2 in.	100	\$0 15
10411	1724	4	"	100	15
10412	1725	5	"	100	15
10413	1726	6	"	100	15
10414	1728	8	"	100	15
10415	1729	10	"	100	15
10416	1730	12	"	100	15
10417	1731	15	"	100	15

D. & W. INDICATING CARTRIDGE FUSES.
D. & W. Standard.

250 Volt Panel Cartridge Fuse.

Type A or Screw Clamp Contact.

List No.	Mfrs. No.	Amp. Capacity.	Center to Center	Std. Pkg.	Price.
10428	1733	3	2½ In.	100	\$0 24
10429	1734	4	"	100	24
10430	1735	5	"	100	24
10431	1736	6	"	100	24
10432	1737	8	"	100	24
10433	1738	10	"	100	24
10434	1739	12	"	100	24
10435	1740	15	"	100	24
10436	1741	18	"	100	24
10437	1742	20	"	100	24
10438	1743	25	"	100	24
10439	1744	30	"	100	24
10440	1745	35	"	100	24

110 Volt Panel Cartridge Fuses.

Type C or Spring Clip Contact.

List No.	Mfrs. No.	Amp. Capacity.	Length over All.	Std. Pkg.	Price.
10418	1753	3	1¾ in.	100	\$0 17
10419	1754	4	"	100	17
10420	1755	5	"	100	17
10421	1756	6	"	100	17
10422	1757	8	"	100	17
10423	1758	10	"	100	17
10424	1759	12	"	100	17
10425	1760	15	"	100	17

110 Volt Panel Cartridge Fuses.

Type A or Screw Clamp Contact.

List No.	Mfrs. No.	Amp. Capacity.	Center to Center.	Std. Pkg.	Price.	List No.	Mfrs. No.	Amp. Capacity.	Center to Center.	Std. Pkg.	Price.
10442	1763	3	2½ In.	100	\$0 24	10452	1773	30	2½ in.	100	\$0 24
10443	1764	4	"	100	24	10453	1774	35	"	100	24
10444	1765	5	"	100	24	10454	1775	40	"	100	24
10445	1766	6	"	100	24	10455	1776	45	"	100	24
10446	1767	8	"	100	24	10456	1777	50	"	100	24
10447	1768	10	"	100	24	10457	1778	55	"	100	24
10448	1769	12	"	100	24	10458	1779	60	"	100	24
10449	1770	15	"	100	24	10459	1780	65	"	100	24
10450	1771	18	"	100	24	10460	1781	70	"	100	24
10451	1772	25	"	100	24	10461	1782	75	"	100	24
						14268	1783	80	"	100	24
						14269	1784	90	"	100	24
						14270	1785	100	"	100	24

D. & W. 250 Volt Renewable Plug Fuses.

Fuse Case Only. Type B. Fuse Case Only

For use in Edison Plug Cut-out

List No.	Mfrs. No.	Amp. Capacity.	Std. Pkg.	Price.
14266	100	30	100	\$0 25
Plug Cartridge Fuses for use in above Case.				
14271	103	3	100	14
14272	104	4	100	14
14273	105	5	100	14
14274	106	6	100	14
14275	108	8	100	14
14276	110	10	100	14
14277	112	12	100	14
14278	115	15	100	14
14279	118	18	100	14
14280	120	20	100	14
14281	125	25	100	14
14282	130	30	100	14

For Use in G. E. Plug Cut-out.

List No.	Mfrs. No.	Amp. Capacity.	Std. Pkg.	Price.
14267	131	75	50	\$0 50
Plug Cartridge Fuses for use in above Case.				
14283	135	35	50	25
14284	140	40	50	25
14285	145	45	50	25
14286	150	50	50	25
14287	155	55	50	25
14288	160	60	50	25
14289	165	65	50	25
14290	170	70	50	25
14291	175	75	50	25

D. & W. INDICATING CARTRIDGE FUSES.**D. & W. Standard.****500 Volt Cartridge Fuses.**

Type A or Screw Clamp Contact.

For Use in 10 Ampere Type A Blocks.

List No.	Mfrs. No.	Ampere Capacity.	Center to Center.	Std. Pkg.	Price.
5757	503	3	5 7/16 in.	100	\$0 23
5758	504	4	"	100	23
5759	506	6	"	100	29
5760	508	8	"	100	29
5761	510	10	"	100	29

For Use in 25 Amp. Type A Blocks.

5762	512	12	6 1/16 in.	100	\$0 34
5763	514	14	"	100	34
5764	516	16	"	100	34
5765	518	18	"	100	34
5766	520	20	"	100	34
5767	525	25	"	100	34

For Use in 50 Amp. Type A Blocks.

5768	530	30	6 3/4 in.	100	\$0 40
5769	535	35	"	100	40
5770	540	40	"	100	40
5771	545	45	"	100	40
5772	550	50	"	100	40

For Use in 100 Amp. Type A Blocks.

5773	560	60	7 1/2 in.	50	\$0 56
5781	565	65	"	50	56
5782	570	70	"	50	56
5774	575	75	"	50	56
5783	580	80	"	50	56
5784	590	90	"	50	56
5775	600	100	"	50	56
5794	610	110	"	50	56
5795	620	120	"	50	56
5776	625	125	"	50	56

For Use in 300 Ampere Type A Blocks.

10462	630	150	8 1/4 in.	25	\$1 80
10463	635	175	"	25	1 80
10464	640	200	"	25	1 80
10465	645	225	"	25	1 80
10466	650	250	"	25	1 80
10467	655	275	"	25	1 80
10468	660	300	"	25	1 80

500 Volt**Type C or Spring Clip Contact.**

For Use in 15 Amp. Type C Blocks.

List No.	Mfrs. No.	Ampere Capacity.	Length Over All.	Std. Pkg.	Price.
10487	5003	3	4 5/8 in.	100	\$0 27
10488	5004	4	"	100	27
10489	5006	6	"	100	27
10490	5008	8	"	100	27
10491	5010	10	"	100	27
10492	5012	12	"	100	27
10493	5014	14	"	100	27
10494	5015	15	"	100	27

For Use in 30 Amp. Type C Blocks.

10495	5016	16	5 in.	100	\$0 30
10496	5018	18	"	100	30
10497	5020	20	"	100	30
10498	5025	25	"	100	30
10499	5030	30	"	100	30

Type C Fuses—Continued.

For Use in 60 Amp. Type C Blocks.

List No.	Mfrs. No.	Ampere Capacity.	Length Over All.	Std. Pkg.	Price.
10500	5035	35	6 in.	100	\$0 38
10501	5040	40	"	100	38
10502	5045	45	"	100	38
10503	5050	50	"	100	38
10504	5055	55	"	100	38
10505	5060	60	"	100	38

For Use in 125 Amp. Type C Blocks.

10506	5065	65	6 in.	50	\$0 70
10507	5070	70	"	50	70
10508	5075	75	"	50	70
10510	5080	80	"	50	70
10511	5090	90	"	50	70
10512	5100	100	"	50	70
10513	5110	110	"	50	70
10514	5120	120	"	50	70
10515	5125	125	"	50	70

For Use in 300 Amp. Type C Blocks.

10516	5150	150	6 3/4 in.	25	\$5 00
10517	5152	175	"	25	5 00
10518	5154	200	"	25	5 00
10519	5156	225	"	25	5 00
10520	5158	250	"	25	5 00
10521	5160	275	"	25	5 00
10522	5162	300	"	25	5 00

For Use in 500 Amp. Type C Blocks.

10523	5164	350	6 3/4 in.	10	\$6 00
10524	5166	400	"	10	6 00
10525	5168	450	"	10	6 00
10526	5170	500	"	10	6 00

D. & W. 500 Volt Indicating Cartridge Fuses.

For Car Heater Cut-Outs.

Type A.

List No.	Mfrs. No.	Ampere Capacity.	Center to Center.	Std. Pkg.	Price.
10605	1523	3	5 3/32 in.	100	\$0 27
10606	1524	4	"	100	27
10607	1526	6	"	100	27
10608	1528	8	"	100	27
10609	1530	10	"	100	27
10610	1532	12	"	100	27
10611	1534	14	"	100	27
10612	1535	15	"	100	27

Type C.

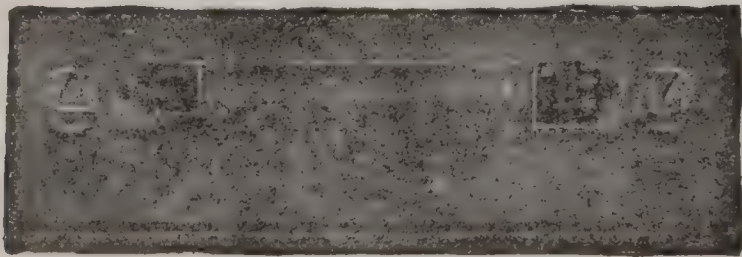
10613	1643	3	4 5/8 in.	100	\$0 27
10614	1644	4	"	100	27
10615	1646	6	"	100	27
10616	1648	8	"	100	27
10617	1650	10	"	100	27
10618	1652	12	"	100	27
10619	1654	14	"	100	27
10620	1655	15	"	100	27

D. & W. 500 Volt Car Heater Cut-Outs.

List No.	Mfrs. No.	Ampere Capacity.	Length Over All.	Fuse Pkg.	Price.
5789	1515	15	4 5/8 in.	50	\$0 75
5790	1516	15	"	50	75

D. & W. 2000 VOLT SLATE CUT-OUTS.

For Indicating Cartridge Fuses.

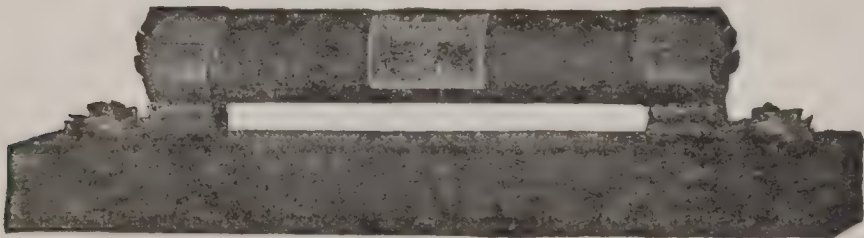


TYPE "A" OR SCREW CLAMP CONTACT

List No.	Mfrs. No.	Max. Cap.	Description	Dist. on Centres	Std. Pkg.	Price Each
10590	20030	30 amp.	Single Pole	6½ in.	50	\$1 20
10591	20060	60 "	Single Pole	7¼ "	50	1 40
10592	20100	100 "	Single Pole	7½ "	50	2 00

D. & W. 2000 Volt Slate Cut-Outs.

For Indicating Cartridge Fuses.



TYPE "C" OR SPRING CLIP CONTACT.

List No.	Mfrs. No.	Max. Cap.	Description	Lgth. Fuse Over all	Std. Pkg.	Price Each
10593	4215	15 amp.	Single Pole	5 in.	50	\$1 00
10594	4216	30 "	Single Pole	5 ¾ "	50	1 20
10595	4217	60 "	Single Pole	6 ⅛ "	50	1 40

D. & W. Cartridge Fuses, 2000 Volt.

TYPE "A" OR SCREW CLAMP CONTACT

For Use in 30 Ampere Type A Cut-out.

List No.	Mfrs. No.	Amp. Capacity.	Center to Center.	Std. Pkg.	Price
14297	2001	1½	6½ in.	100	\$0 36
14298	2002	2	6½	100	36
14299	2003	3	6½	100	36
14300	2004	4	6½	100	36
14301	2005	5	6½	100	36
14302	2006	6	6½	100	36
14303	2008	8	6½	100	36
14304	2010	10	6½	100	36
14305	2012	12	6½	100	36
14306	2013	13	6½	100	36
14307	2014	14	6½	100	36
14308	2015	15	6½	100	36
14309	2016	16	6½	100	42
14310	2018	18	6½	100	42
14311	2020	20	6½	100	42
14312	2022	22	6½	100	42
14323	2025	25	6½	100	42
14324	2030	30	6½	100	42

For Use in 60 Ampere Type A Cut-out.

14326	2035	35	7¼	100	60
14327	2040	40	7¼	100	60
14328	2045	45	7¼	100	60
14329	2050	50	7¼	100	60
14330	2055	55	7¼	100	60
14331	2060	60	7¼	100	60

TYPE C OR SPRING-CLIP CONTACT.

For Use in 15 Ampere Type C Cut-out.

List No.	Mfrs. No.	Amp. Capacity.	Length Over all.	Std. Pkg.	Price
14332	4101	1½	5 in.	100	\$0 34
14333	4102	2	5	100	34
14334	4103	3	5	100	34
14354	4104	4	5	100	34
14335	4105	5	5	100	34
14336	4106	6	5	100	34
14337	4108	8	5	100	34
14338	4110	10	5	100	34
14339	4112	12	5	100	34
14340	4113	13	5	100	34
14341	4114	14	5	100	34
14342	4115	15	5	100	34

For Use in 30 Ampere Type C Cut-out.

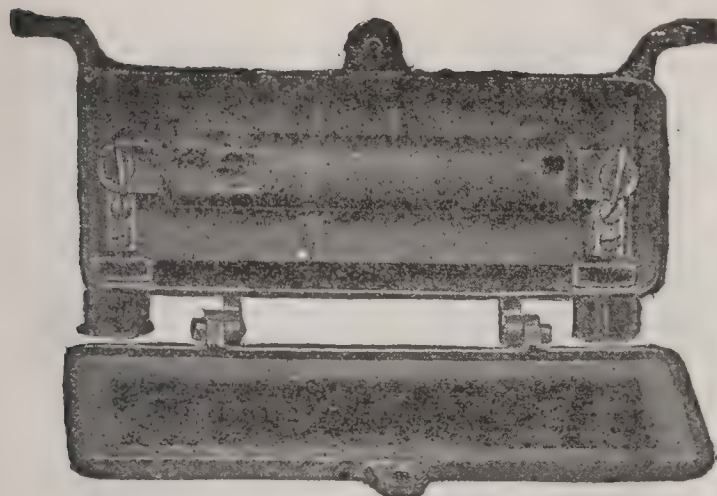
14343	4116	16	5 ⅛	100	40
14344	4118	18	"	100	40
14345	4120	20	"	100	40
14346	4122	22	"	100	40
14347	4125	25	"	100	40
14348	4130	30	"	100	40

For Use in 60 Ampere Type C Cut-out.

14349	4135	35	6 ⅛	100	60
14350	4140	40	"	100	60
14351	4145	45	"	100	60
14352	4150	50	"	100	60
14353	4160	60	"	100	60

D. & W. 500 VOLT RAILWAY CUT-OUTS.

D. & W. Standard.
For Indicating Cartridge Fuses.



List No. 5787.

List Mfrs. No. No.	Dist. on Centres	Price. Each.
5787 60125	Type R, Street Car Motor Cut- out, cap. 60 to 125 amp. 500 v. 7½ in.	\$5 25
5788 60126	Ty R-2, Street Car Motor Cut- out, cap. 150 to 300 amp. 500 v. 8¼ " Standard Package 25.	7 50

The Type "R" boxes are also equipped for Type "C" or Spring Clip Fuses when desired, without extra charge.

D. & W. 500 Volt Indicating Cartridge Fuses.

For Railway Cut-outs.

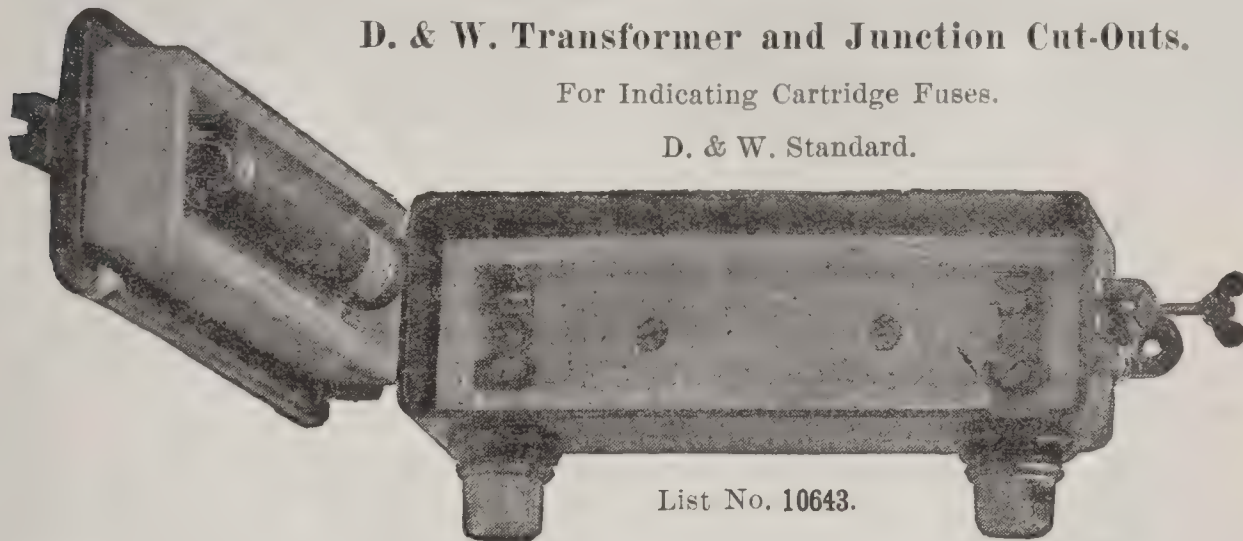
List No.	Continuous Load Current		Dist. on Centres	Price Each.
10602	60 to 125 amp.	For use in Type R Box, 500 volts.....	7½ in.	\$0 56
10603	150 to 200 "	" " " R-2 " 500 "	8¼ "	1 80

Standard Package 25. Give List Number and Amperage when ordering.

D. & W. Transformer and Junction Cut-Outs.

For Indicating Cartridge Fuses.

D. & W. Standard.



List No. 10643.

List No.	Mfrs. No.	Description	Dist. on Centres	Price Each.
10643	935	Type A, Transformer Cut-out, capacity 1 to 4 amperes, 6,000 volts, or 1 to 30 amperes, 2,500 volts.	6½ in.	\$4 60
10644	936	Type C, Fused Junction Cut-out, capacity 1 to 30 amperes, 2,500 volts... ..	6½ "	4 95
10645	937	" S, " " " " 35 to 60 " " " " ...	7¼ "	9 15
10646	938	Type G, Junction Switch, without Fuse, max. cap. 200 amp., 2,500 volts, Standard Package Quantity 25.		11 20

D. & W. Cartridge Fuses.

For Transformer and Junction Cut-outs.

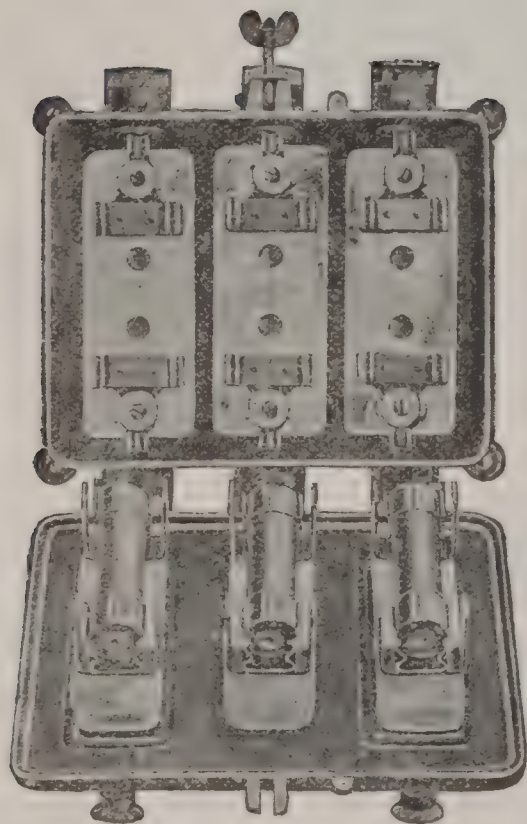
EQUIPPED WITH INDICATOR FROM THREE AMPERES UP.

List No.	Con. Load Cur. Amp.	Description	Std. Pkg.	Dist. on Centres	Price Each.
10647	1 to 5	For use in Type A Box, 6,000 volts	25	6½ in.	\$0 40
10648	1 to 15	For use in Type A or C Box, 2,500 volts.....	100	6½ "	36
10649	16 to 30	For use in Type A or C Box, 2,500 volts.....	100	6½ "	42
10650	35 to 60	For use in Type S Box, 2,500 volts	100	7¼ "	60

D. & W. SERVICE SWITCHES AND BOXES.

For Indicating Cartridge Fuses.

D. and W. Standard.



List No 10625.



List No. 10630.

List No.	Mfrs. No.	Description.	Lg. Fuse Over all.	Std. Pkg.	Dist. on Centres.	Price Each
10624	460	Type B-2, Fused Service Switch, 2 Wire, Spring Clip Fuse Contacts, capacity 3 to 60 amperes, 250 volts.....	35/8 in.	25		\$7 80
10625	463	Type B-4, Fused Selective Service Switch, 3 Wire, Spring Clip Fuse Contacts, capacity 3 to 60 amperes, 250 volts.....	35/8 in.	25		10 00
10626	464	Type D, Fused Service Switch, 2 Wire, cap.4 to 60 amp., 250 volts	25	4 9/16 in.		9 00
10627	466	Capacity 3 to 50 amperes, 500 volts	25	6 3/4 "		9 20
10628	468	Type D-2, Fused Service Switch, 2 Wire, cap. 65 to 125 amp., 250 volts.....	25	5 1/8 "		13 00
10629	470	Type F, Fused Service Switch, 3 Wire, cap.4 to 60 amp., 250 volts	25	4 9/16 "		12 80
10630	472	Type F-2, " " " 3 " " 65 to 125 " 250 "	20	5 1/8 "		19 20
10631	474	Type F-3, " " " 3 " " 150 to 300 " 250 "	10	6 3/4 "		39 50
10632	476	Type K, Service Box (without switch), 2 Wire, capacity 150 to 300 amperes, 250 volts.....	20	6 3/4 "		15 00
10633	478	Type K-2, Service Box (without switch), 3 Wire, capacity 350 to 500 amperes, 250 volts.....	20	6 3/4 "		29 60

D. & W. Indicating Cartridge Fuses.

For Service Switches and Boxes.

List No.	Continuous Load Current.	Description.	Lg. Fuse Over all.	Std. Pkg.	Dist. on Centres.	Price Each
10634	4 to 60 amp.,	For Use in Type B-2 or B-4 Box. 250 volts..	35/8 in.	100		\$0 30
10635	4 to 60 "	" " D or F " 250 " ...		100	4 9/16 in.	35
10636	4 to 50 "	" " D " 500 " ...		100	6 3/4 "	40
10637	65 to 125 "	" " D-2 or F-2 " 250 " ...		50	5 1/8 "	50
10638	150 to 300 "	" " F-3 or K " 250 " ...		25	6 3/4 "	1 60
10639	350 to 500 "	" " K-2 " 250 " ...		10	6 3/4 "	2 00

Always give Number and Amperage when ordering.

ENCLOSED FUSE CUT-OUTS AND FUSES.

National Electrical Code Standard.

30 Ampere, 250 Volts.



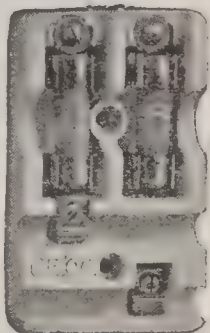
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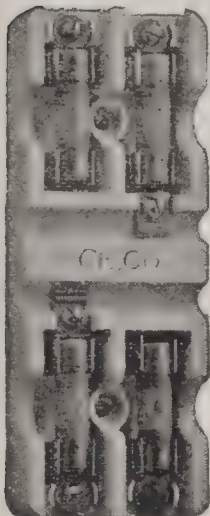
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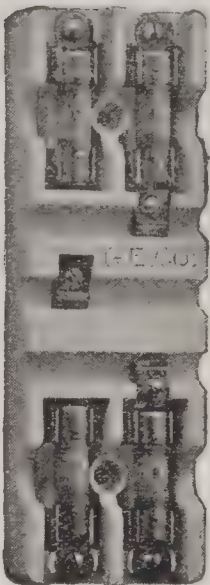
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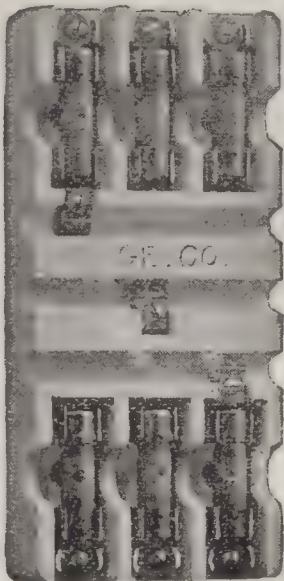
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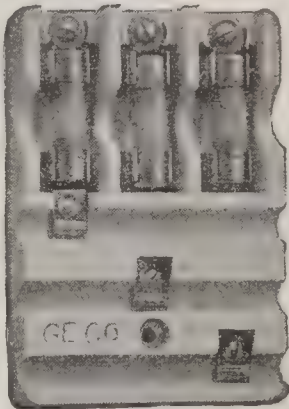
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No. 34370.



No. 34374



No. 34373.

List No.		Std. Pkg.	Price.
36802	Single Pole, Main Line.....	50	\$0 50
34367	Two Wire, Main Line.....	50	88
34368	Two Wire, Single Branch.....	50	1 40
34369	Two Wire, Double Branch.....	25	2 80
34371	Two Wire, Cross Over.....	50	1 50
34370	Three to Two Wire, Double Branch.....	25	3 40
34372	Three Wire, Main Line	50	1 30
34373	Three Wire, Single Branch.....	50	2 20
34374	Three Wire, Double Branch.....	25	4 60

Fuses for Use With 30 Ampere 250 Volt Cut-Outs.



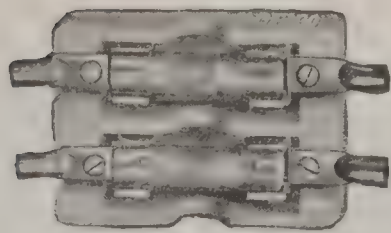
Length Over All, 2 Inches.

Diameter of Tube, 1/2 Inch.

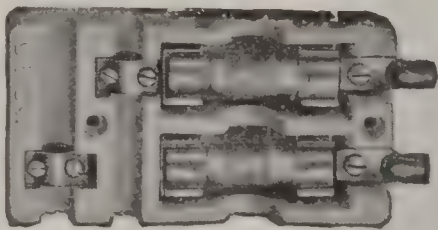
List No.	Amp. Capacity	Std. Pkg.	Price.	List No.	Amp. Capacity	Std. Pkg.	Price.
34949	3	100	\$0 25	34954	15	100	\$0 25
34950	5	100	25	34955	20	100	25
34951	8	100	25	34956	25	100	25
34952	10	100	25	34957	30	100	25
34953	12	100	25				

ENCLOSED FUSE CUT-OUTS AND FUSES.

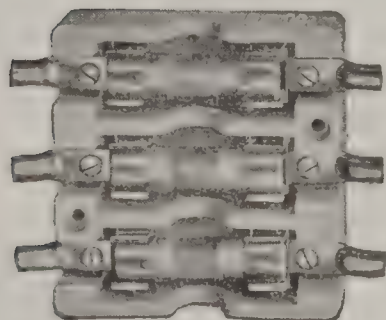
National Electrical Code Standard,
60 Ampere 250 Volts



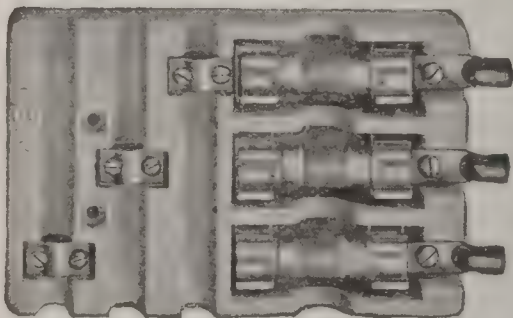
No. 34376.



No. 34378.



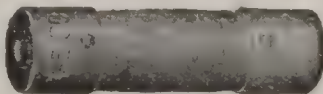
No. 34377.



No. 34379.

List No.		Std. Pkg.	Price.
36803	Single pole, main line.....	50	\$0 96
34376	Two wire, main line.....	50	1 75
34377	Three wire, main line.....	50	2 55
34378	Two wire, single branch	50	3 00
34379	Three wire single branch.....	50	4 00
36806	Two wire, double branch	25	5 60
36805	Three to two wire, double branch	25	6 50
36804	Three wire, double branch.....	10	12 00

Fuses for 60 Ampere 250 Volt Cut-Outs.



Length Over All 3 Inches.				Diameter of Tube 3/4 Inch.			
List No.	Amp. Capacity	Std. Pkg.	Price	List No.	Amp. Capacity	Std. Pkg.	Price.
34958	35	100	\$0 33	34961	50	100	\$0 33
34959	40	100	33	34962	55	100	33
34960	45	100	33	34963	60	100	33

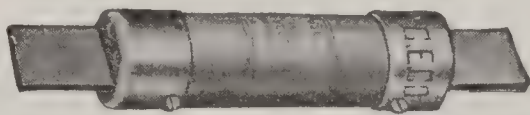
250 Volt Enclosed Fuse Cut-Out, 100 Amperes and Upwards.



List No.		Amperes	Std. Pkg.	Price.
34964	Single pole, cut-out.....	61 to 100	50	\$1 30
36801	Double pole, cut-out.....	61 to 100	50	2 60
36800	Triple pole, cut-out.....	61 to 100	25	3 80
34971	Single pole, cut-out	101 to 200	50	2 40
34982	Single pole, cut-out.....	201 to 400	25	6 40
36471	Single pole, cut-out.....	401 to 600	10	9 20

ENCLOSED FUSES FOR 250 VOLT CUT-OUTS.

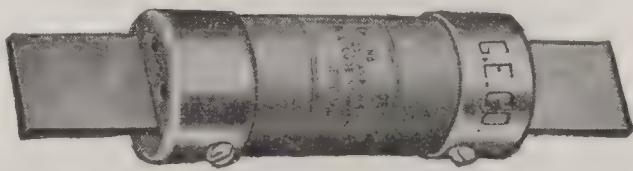
National Electrical Code Standard for use with 250 Volt,
100 Ampere Cut-Outs.



Length over all $5\frac{7}{8}$ inches.
Diameter of Tube 1 inch.

List No.	Amp. Capacity.	Std. Pkg.	Price.		List No.	Amp. Capacity.	Std. Pkg.	Price.	
			Fuse.	Refilling.				Fuse.	Refilling.
34965	65	50	\$0 86	\$0 57	34968	80	50	\$0 86	\$0 57
34966	70	50	86	57	34969	90	50	86	57
34967	75	50	86	57	34970	100	50	86	57

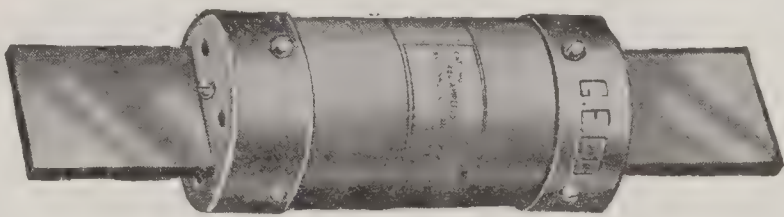
Fuses for Use with 250 Volt, 200 Ampere Cut-Outs.



Length over all $7\frac{3}{8}$ inches.
Diameter of Tube $1\frac{1}{2}$ inches.

List No.	Amp. Capacity.	Std. Pkg.	Price.		List No.	Amp. Capacity.	Std. Pkg.	Price.	
			Fuse.	Refilling.				Fuse.	Refilling.
34972	110	25	\$2 00	\$0 90	34977	160	25	\$2 00	\$0 90
34973	120	25	2 00	90	34978	170	25	2 00	90
34974	130	25	2 00	90	34979	180	25	2 00	90
34975	140	25	2 00	90	34980	190	25	2 00	90
34976	150	25	2 00	90	34981	200	25	2 00	90

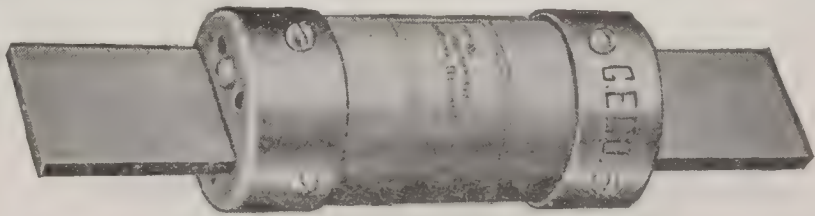
Fuses for Use with 250 Volt, 400 Ampere Cut-Outs.



Length over all $8\frac{3}{4}$ inches.
Diameter 2 inches.

List No.	Amp. Capacity.	Std. Pkg.	Price.		List No.	Amp. Capacity.	Std. Pkg.	Price.	
			Fuse.	Refilling.				Fuse.	Refilling.
34983	225	25	\$3 40	\$1 48	34987	325	25	\$3 40	\$1 48
34984	250	25	3 40	1 48	34988	350	25	3 40	1 48
34985	275	25	3 40	1 48	34989	375	25	3 40	1 48
34986	300	25	3 40	1 48	34990	400	25	3 40	1 48

Fuses for Use with 250 Volt, 600 Ampere Cut-Outs.



Length over all $10\frac{1}{2}$ inches.
Diameter of Tube $2\frac{1}{2}$ inches.

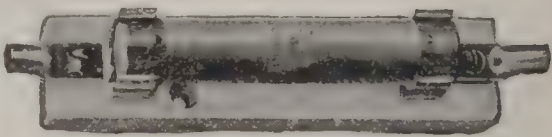
List No.	Amp. Capacity.	Std. Pkg.	Price.		List No.	Amp. Capacity.	Std. Pkg.	Price.	
			Fuse.	Refilling.				Fuse.	Refilling.
36472	425	10	\$5 20	\$2 00	36476	525	10	\$5 20	\$2 00
36473	450	10	5 20	2 00	37754	550	10	5 20	2 00
36474	475	10	5 20	2 00	36477	575	10	5 20	2 00
36475	500	10	5 20	2 00	36478	600	10	5 20	2 00

Minimum Refilling Quantity of Fuses, 30.

ENCLOSED FUSE CUT-OUTS AND FUSES.

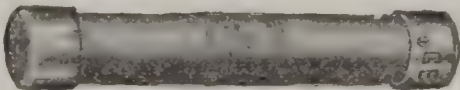
National Electrical Code Standard.

600 Volt Single Pole Enclosed Fuse Cut-Outs.
30 Amperes and Upwards.



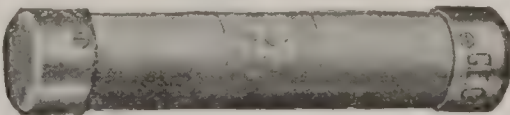
No. 34991.				No. 35101.		Price.
List No.				Std. Pkg.		
34991	Single Pole, Cut-Out,	3 to 30 Amperes	.....	50		\$0 64
35101	Single Pole, Cut-Out,	31 to 60	.....	50		1 15
21474	Single Pole, Cut-Out,	61 to 100	.....	50		1 45
35114	Single Pole, Cut-Out,	101 to 200	.....	50		2 60
35125	Single Pole, Cut-Out,	201 to 400	.....	25		6 60
36479	Single Pole, Cut-Out,	401 to 600	.....	10		9 60

Fuses for Use with 600 Volt, 30 Ampere Cut-Outs.



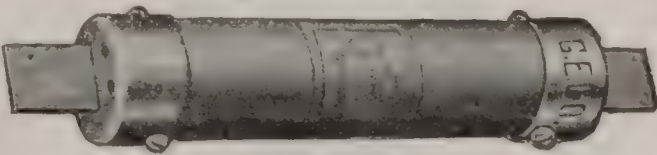
Length over all 5 inches.				Diameter of Tube 3/4 inch.			
List No.	Amp. Capacity.	Std. Pkg.	Price.	List No.	Amp. Capacity.	Std. Pkg.	Price.
34992	3	100	\$0 38	34997	15	100	\$0 38
34993	5	100	38	34998	20	100	38
34994	8	100	38	34999	25	100	38
34995	10	100	38	35100	30	100	38
34996	12	100	38				

Fuses for Use with 600 Volt, 60 Ampere Cut-Outs.



Length over all 5 1/2 inches.				Diameter of Tube 1 inch			
List No.	Amp. Capacity.	Std. Pkg.	Price.	List No.	Amp. Capacity.	Std. Pkg.	Price.
35102	35	100	\$0 44	35105	50	100	\$0 44
35103	40	100	44	35106	55	100	44
35104	45	100	44	35107	60	100	44

Fuses for Use with 600 Volt, 100 Ampere Cut-Outs.



Length over all 7 3/4 inches.					Diameter of Tube 1 1/4 inches.				
		Amp.	Std.	Price.			Amp.	Std.	Price.
List No.	Capacity.	Pkg.	Fuse.	Refilling.	List No.	Capacity.	Pkg.	Fuse.	Refilling.
35108	65	50	\$1 20	\$0 80	35111	80	50	\$1 20	\$0 80
35109	70	50	1 20	80	35112	90	50	1 20	80
35110	75	50	1 20	80	35113	100	50	1 20	80

Fuses for Use with 600 Volt, 200 Ampere Cut-Outs.

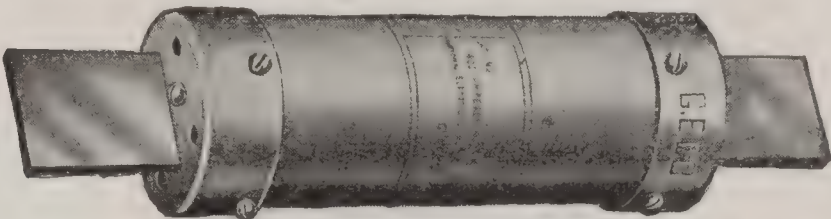


Length over all 9 1/4 inches.					Diameter of Tube 1 3/4 inches.				
		Amp.	Std.	Price.			Amp.	Std.	Price.
List No.	Capacity.	Pkg.	Fuse.	Refilling.	List No.	Capacity.	Pkg.	Fuse.	Refilling.
35115	110	25	\$2 50	\$1 20	35120	160	25	\$2 50	\$1 20
35116	120	25	2 50	1 20	35121	170	25	2 50	1 20
35117	130	25	2 50	1 20	35122	180	25	2 50	1 20
35118	140	25	2 50	1 20	35123	190	25	2 50	1 20
35119	150	25	2 50	1 20	35124	200	25	2 50	1 20

Minimum Refilling Quantity of Fuses, 30.

ENCLOSED FUSE FOR 600 VOLT CUT-OUTS.

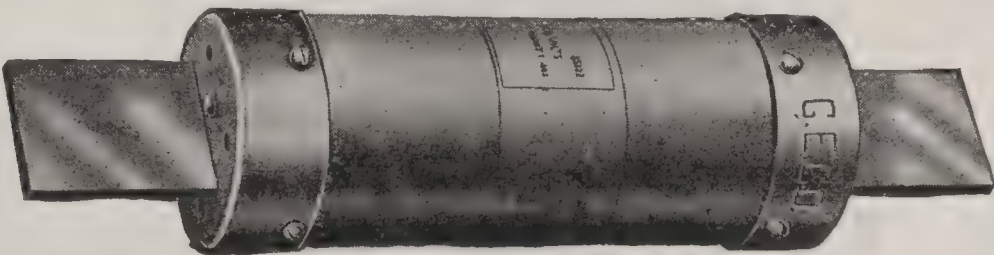
National Electrical Code Standard.
Fuses for Use With 600 Volt 400 Ampere Cut-Out.



Length Over All, 11¾ Inches.
Diameter of Tube, 2½ Inches.

List No.	Amp. Capacity	Std. Pkg.	Price.		List No.	Amp. Capacity	Std. Pkg.	Price.	
			Fuse	Refilling.				Fuse	Refilling.
35126	225	25	\$5 25	\$2 00	35130	325	25	\$5 25	\$2 00
35127	250	25	5 25	2 00	35131	350	25	5 25	2 00
35128	275	25	5 25	2 00	35132	375	25	5 25	2 00
35129	300	25	5 25	2 00	35133	400	25	5 25	2 00

Fuses for Use With 600 Volt 600 Ampere Cut-Out.

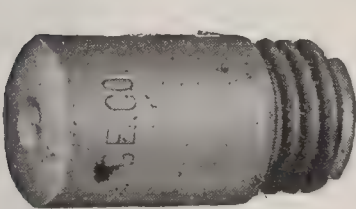


Length Over All, 13½ Inches.
Diameter of Tube, 3 Inches.

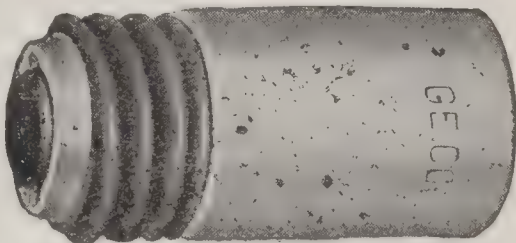
List No.	Amp. Capacity	Std. Pkg.	Price.		List No.	Amp. Capacity	Std. Pkg.	Price.	
			Fuse	Refilling.				Fuse	Refilling.
36480	425	10	\$8 00	\$3 00	36484	525	10	\$8 00	\$3 00
36481	450	10	8 00	3 00	37755	550	10	8 00	3 00
36482	475	10	8 00	3 00	36485	575	10	8 00	3 00
36483	500	10	8 00	3 00	36486	600	10	8 00	3 00

Minimum Refilling Quantity of Fuses, 30.

Renewable Fuse Plugs and Reloads.
For 250 Volt Circuits.



List No. 36093.

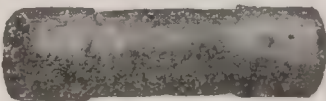


List No. 36094.

Fuse Plug Casings Only.

List No.		Std. Pkg.	Each	Price.
36093	30 Amp. 250 Volts.	100.	.....	\$0 18
36094	60 Amp. 250 Volts.	100.	.....	36

Reloads for 30 Ampere 250 Volt Renewable Fuse Plugs.



List No.	Amp. Capacity	Std. Pkg.	Price.	List No.	Amp. Capacity	Std. Pkg.	Price.
34949	3	100	\$0 25	34954	15	100	\$0 25
34950	5	100	25	34955	20	100	25
34951	8	100	25	34956	25	100	25
34952	10	100	25	34957	30	100	25
34953	12	100	25				

ENCLOSED FUSES FOR 250 VOLT CIRCUITS.

National Electrical Code Standard.

Reloads For 60 Ampere 250 Volt Renewable Fuse Plugs.



List No.	Ampere Capacity	Std. Pkg.	Price.	List No.	Ampere Capacity	Std. Pkg.	Price.
34958	35	100	\$0 33	34961	50	100	\$0 33
34959	40	100	33	34962	55	100	33
34960	45	100	33	34963	60	100	33

Fuse Clips and Terminals for National Electrical Code Standard Enclosed Fuse Cut-Outs.



List No. 36487.



List No. 36488.



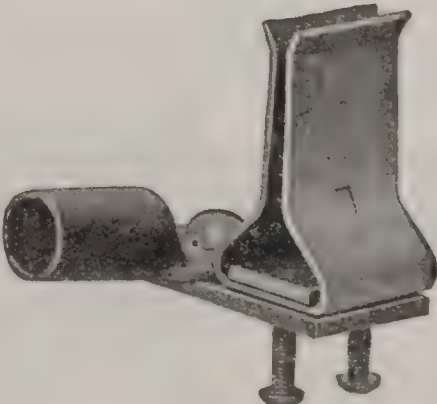
List No. 36489.



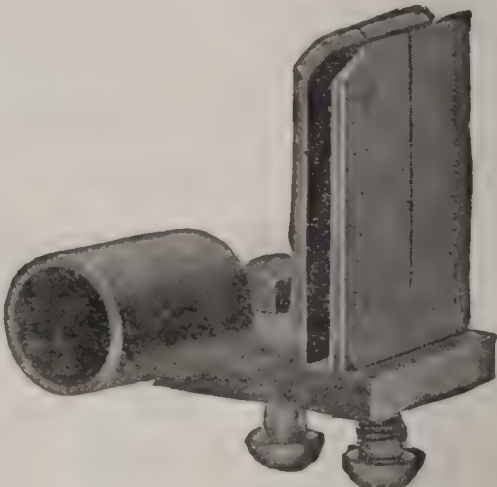
List No. 36490.



List No. 36491



List No. 36492.



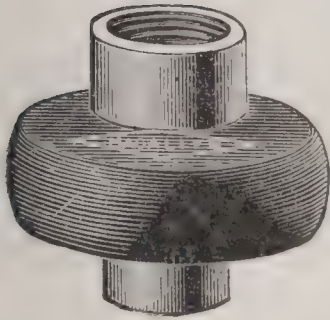
List No. 36493.

Fuse Clips and Terminals, Complete.

List No.	Rating of Cut-Out	Standard Package	Price.
36487	30 amperes, 250 volts.....	100	\$0 16
36488	30 amperes, 600 volts.....	100	18
36489	60 amperes, 250 volts.....	100	32
36490	60 amperes, 600 volts.....	100	36
36491	100 amperes, 250 and 600 volts.....	100	48
36492	200 amperes, 250 and 600 volts.....	100	88
36493	400 amperes, 250 and 600 volts.....	50	2 50
36776	600 amperes, 250 and 600 volts.....	20	4 20

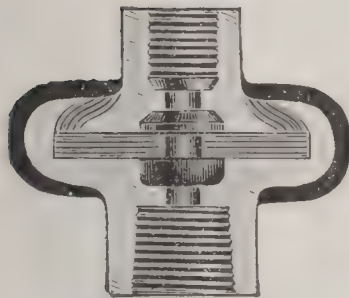
MACALLEN INSULATING JOINTS.

Chandelier Insulating Joints for Combination Fixtures.



IN COMPOSITION BRASS.

List No.	Mf'rs No.	Size.	Price.	List No.	Mf'rs No.	Size.	Price.
5820	1001	$\frac{3}{8}$ x $\frac{1}{8}$	\$0 50	5827	1010	$\frac{3}{4}$ x $\frac{3}{8}$	\$1 00
5821	1002	$\frac{3}{8}$ x $\frac{1}{4}$	50	5828	1011	$\frac{3}{4}$ x $\frac{1}{2}$	1 00
5822	1003	$\frac{3}{8}$ x $\frac{3}{8}$	50	5829	1012	$\frac{3}{4}$ x $\frac{3}{4}$	1 00
5823	1004	$\frac{1}{2}$ x $\frac{1}{8}$	$66\frac{2}{3}$	5830	1013	1 x $\frac{1}{2}$	1 60
5824	1005	$\frac{1}{2}$ x $\frac{1}{4}$	$66\frac{2}{3}$	5831	1014	1 x $\frac{3}{4}$	1 60
5825	1006	$\frac{1}{2}$ x $\frac{3}{8}$	$66\frac{2}{3}$	5832	1015	1 x 1	1 60
5826	1007	$\frac{1}{2}$ x $\frac{1}{2}$	$66\frac{2}{3}$				

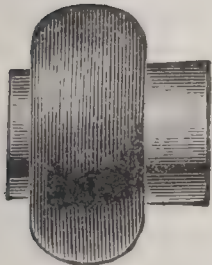


IN MALLEABLE IRON.

List No.	Mf'rs No.	Size.	Price.	List No.	Mf'rs No.	Size.	Price.
5833	1041	$\frac{3}{8}$ x $\frac{1}{8}$	\$0 45	5840	1048	$\frac{3}{4}$ x $\frac{3}{8}$	\$0 90
5834	1042	$\frac{3}{8}$ x $\frac{1}{4}$	45	5841	1049	$\frac{3}{4}$ x $\frac{1}{2}$	90
5835	1043	$\frac{3}{8}$ x $\frac{3}{8}$	45	5842	1050	$\frac{3}{4}$ x $\frac{3}{4}$	90
5836	1044	$\frac{1}{2}$ x $\frac{1}{8}$	60	5843	1051	1 x $\frac{1}{2}$	1 45
5837	1045	$\frac{1}{2}$ x $\frac{1}{4}$	60	5844	1052	1 x $\frac{3}{4}$	1 45
5838	1046	$\frac{1}{2}$ x $\frac{3}{8}$	60	5845	1053	1 x 1	1 45
5839	1047	$\frac{1}{2}$ x $\frac{1}{2}$	60				

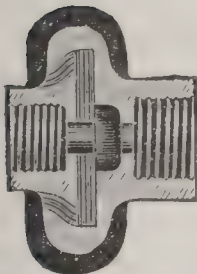
Bracket Insulating Joints for Combination Fixtures.

IN COMPOSITION BRASS.



List No.	Mf'rs No.	Size.	Price.	List No.	Mf'rs No.	Size.	Price.
5847	1261	$\frac{1}{8}$ x $\frac{1}{8}$	\$0 40	5852	1123	$\frac{3}{8}$ x $\frac{3}{8}$	\$0 40
5848	1262	$\frac{1}{4}$ x $\frac{1}{8}$	40	5855	1124	$\frac{1}{2}$ x $\frac{1}{8}$	54
5849	1263	$\frac{1}{4}$ x $\frac{1}{4}$	40	5856	1125	$\frac{1}{2}$ x $\frac{1}{4}$	54
5850	1121	$\frac{3}{8}$ x $\frac{1}{8}$	40	5857	1126	$\frac{1}{2}$ x $\frac{3}{8}$	54
5851	1122	$\frac{3}{8}$ x $\frac{1}{4}$	40	5858	1127	$\frac{1}{2}$ x $\frac{1}{2}$	54

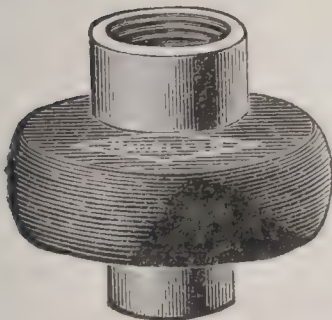
IN MALLEABLE IRON.



List No.	Mf'rs No.	Size.	Price.	List No.	Mf'rs No.	Size.	Price.
5853	1141	$\frac{3}{8}$ x $\frac{1}{8}$	\$0 36	5857	1145	$\frac{1}{2}$ x $\frac{1}{4}$	\$0 50
5854	1142	$\frac{3}{8}$ x $\frac{1}{4}$	36	5858	1146	$\frac{1}{2}$ x $\frac{3}{8}$	50
5855	1143	$\frac{3}{8}$ x $\frac{3}{8}$	36	5859	1147	$\frac{1}{2}$ x $\frac{1}{2}$	50
5856	1144	$\frac{1}{2}$ x $\frac{1}{8}$	50				

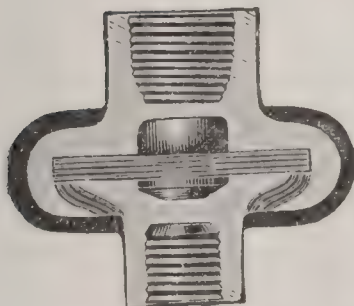
Blank Insulating Joints for Externally Wired Electric Chandelier Fixtures.

IN COMPOSITION BRASS.



List No.	Mf'rs No.	Size.	Price.	List No.	Mf'rs No.	Size.	Price.
5859	1021	$\frac{3}{8}$ x $\frac{1}{8}$	\$0 50	5866	1030	$\frac{3}{4}$ x $\frac{3}{8}$	\$1 00
5860	1022	$\frac{3}{8}$ x $\frac{1}{4}$	50	5867	1031	$\frac{3}{4}$ x $\frac{1}{2}$	1 00
5861	1023	$\frac{3}{8}$ x $\frac{3}{8}$	50	5868	1032	$\frac{3}{4}$ x $\frac{3}{4}$	1 00
5862	1024	$\frac{1}{2}$ x $\frac{1}{8}$	$66\frac{2}{3}$	5869	1033	$\frac{1}{2}$ x $\frac{1}{2}$	1 60
5863	1025	$\frac{1}{2}$ x $\frac{1}{4}$	$66\frac{2}{3}$	5870	1034	1 x $\frac{3}{4}$	1 60
5864	1026	$\frac{1}{2}$ x $\frac{3}{8}$	$66\frac{2}{3}$	5871	1035	1 x 1	1 60
5865	1027	$\frac{1}{2}$ x $\frac{1}{2}$	$66\frac{2}{3}$				

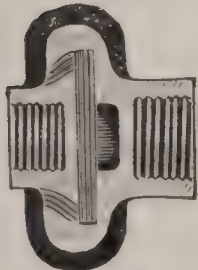
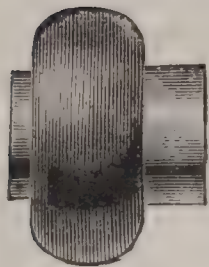
IN MALLEABLE IRON.



List No.	Mf'rs No.	Size.	Price.	List No.	Mf'rs No.	Size.	Price.
5872	1061	$\frac{3}{8}$ x $\frac{1}{8}$	\$0 45	5879	1068	$\frac{3}{4}$ x $\frac{3}{8}$	\$0 90
5873	1062	$\frac{3}{8}$ x $\frac{1}{4}$	45	5880	1069	$\frac{3}{4}$ x $\frac{1}{2}$	90
5874	1063	$\frac{3}{8}$ x $\frac{3}{8}$	45	5881	1070	$\frac{3}{4}$ x $\frac{3}{4}$	90
5875	1064	$\frac{1}{2}$ x $\frac{1}{8}$	60	5882	1071	1 x $\frac{1}{2}$	1 45
5876	1065	$\frac{1}{2}$ x $\frac{1}{4}$	60	5883	1072	1 x $\frac{3}{4}$	1 45
5877	1066	$\frac{1}{2}$ x $\frac{3}{8}$	60	5884	1073	1 x 1	1 45
5878	1067	$\frac{1}{2}$ x $\frac{1}{2}$	60				

MACALLEN INSULATING JOINTS.

Blank Insulating Joints for Externally Wired Electric Bracket Fixtures.



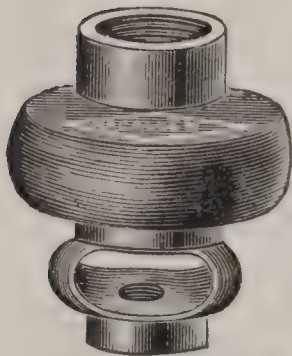
IN COMPOSITION BRASS.							
List No.	Mfrs. No.	Size.	Price.	List No.	Mfrs. No.	Size.	Price.
14357	1281	$\frac{1}{8} \times \frac{1}{8}$	\$0 40	5887	1133	$\frac{3}{8} \times \frac{3}{8}$	\$0 40
14358	1282	$\frac{1}{4} \times \frac{1}{8}$	40	5888	1134	$\frac{1}{2} \times \frac{1}{8}$	54
14359	1283	$\frac{1}{4} \times \frac{1}{4}$	40	5889	1135	$\frac{1}{2} \times \frac{1}{4}$	54
5885	1131	$\frac{3}{8} \times \frac{1}{8}$	40	5890	1136	$\frac{1}{2} \times \frac{3}{8}$	54
5886	1132	$\frac{3}{8} \times \frac{1}{4}$	40	14360	1137	$\frac{1}{2} \times \frac{1}{2}$	54

IN MALLEABLE IRON.

List No.	Mfrs. No.	Size.	Price.	List No.	Mfrs. No.	Size.	Price.
5891	1151	$\frac{3}{8} \times \frac{1}{8}$	36	5895	1155	$\frac{1}{2} \times \frac{1}{4}$	50
5892	1152	$\frac{3}{8} \times \frac{1}{4}$	36	5896	1156	$\frac{1}{2} \times \frac{3}{8}$	50
5893	1153	$\frac{3}{8} \times \frac{3}{8}$	36	14361	1157	$\frac{1}{2} \times \frac{1}{2}$	50
5894	1154	$\frac{1}{2} \times \frac{1}{8}$	50				

Electrolier or Separable Joits .

IN MALLEABLE IRON.

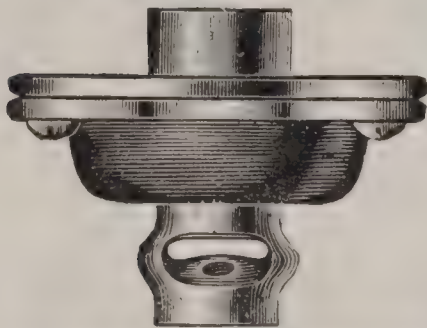


List No.	Mfrs. No.	Size.	Price.	List No.	Mfrs. No.	Size.	Price.
5900	1221	$\frac{3}{8} \times \frac{1}{8}$	50	5906	1227	$\frac{1}{2} \times \frac{1}{2}$	66 $\frac{2}{3}$
5901	1222	$\frac{3}{8} \times \frac{1}{4}$	50	5907	1228	$\frac{3}{4} \times \frac{3}{8}$	1 00
5902	1223	$\frac{3}{8} \times \frac{3}{8}$	50	5908	1229	$\frac{3}{4} \times \frac{1}{2}$	1 00
5903	1224	$\frac{1}{2} \times \frac{1}{8}$	66 $\frac{2}{3}$	5909	1230	$\frac{3}{4} \times \frac{3}{4}$	1 00
5904	1225	$\frac{1}{2} \times \frac{1}{4}$	66 $\frac{2}{3}$	14362	1249	$1 \times \frac{3}{4}$	1 70
5905	1226	$\frac{1}{2} \times \frac{3}{8}$	66 $\frac{2}{3}$	14363	1250	1×1	1 70
BRACKET SIZES							
5910	1241	$\frac{3}{8} \times \frac{1}{8}$	45	14364	1243	$\frac{3}{8} \times \frac{3}{8}$	45
5911	1242	$\frac{3}{8} \times \frac{1}{4}$	45				

Double Separable Electrolier Joints.

IN MALLEABLE IRON ONLY.

These Joints are designed to use with straight electric Fixtures in places where fixtures cannot be turned.



List No.	Mfrs. No.	Size.	Price.	List No.	Mfrs. No.	Size.	Price.
5912	1341	$\frac{3}{8} \times \frac{1}{8}$	\$0 60	5916	1345	$\frac{1}{2} \times \frac{1}{4}$	\$0 65
5913	1342	$\frac{3}{8} \times \frac{1}{4}$	60	5917	1346	$\frac{1}{2} \times \frac{3}{8}$	65
5914	1343	$\frac{3}{8} \times \frac{3}{8}$	60	14365	1347	$\frac{1}{2} \times \frac{1}{2}$	65
5915	1344	$\frac{1}{2} \times \frac{1}{8}$	65				

Insulated Crow Foot.

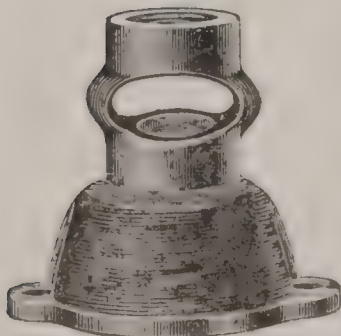
IN MALLEABLE IRON ONLY.



List No.	Mfrs. No.	Size.	Price.	List No.	Mfrs. No.	Size.	Price.
5924	1401	$\frac{1}{8}$	\$0 45	5923	1403	$\frac{3}{8}$	\$0 45
5925	1402	$\frac{1}{4}$	45	5927	1404	$\frac{1}{2}$	60

Electrolier Joints for Outlet Boxes.

Distance between centers of screw holes, 1 $\frac{1}{2}$ inches



IN MALLEABLE IRON.

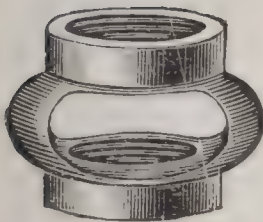


With Hickey.				Without Hickey.			
List No.	Mfrs. No.	Size.	Price.	List No.	Mfrs. No.	Size.	Price.
14366	1331	$\frac{1}{8}$	\$0 37 $\frac{1}{2}$	14269	1336	$\frac{1}{8}$	\$0 30
14367	1332	$\frac{1}{4}$	37 $\frac{1}{2}$	14370	1337	$\frac{1}{4}$	30
14368	1333	$\frac{3}{8}$	37 $\frac{1}{2}$	14371	1338	$\frac{3}{8}$	30

MACALLEN INSULATING JOINTS.

Hickeys.

MALLEABLE IRON.



List No.	Mfrs. No.	Size.	Price.	List No.	Mfrs. No.	Size.	Price.
14375	1450	1/8x1/8	\$0 07 1/2	14376	1461	1/2x1/8	\$0 12 1/2
5929	1451	1/4x1/8	07 1/2	14377	1462	1/2x1/4	12 1/2
5930	1452	1/4x1/4	07 1/2	14378	1463	1/2x3/8	12 1/2
5931	1453	3/8x1/8	10	5934	1456	1/2x1/2	12 1/2
5932	1454	3/8x1/4	10	14379	1457	3/4x3/4	17 1/2
5933	1455	3/8x3/8	10	14380	1458	1x1	25

Both ends tapped to standard iron pipe sizes.

Insulated Chandelier Hooks and Eyes.



Insulated Hooks.

List No.	Mfrs. No.	Pipe Size.	Price.
14381	1391	3/8	\$0 50
14382	1392	1/2	66 2/3

Insulated Eyes.

List No.	Mfrs. No.	Pipe Size.	Price.
14383	1395	3/8	\$0 50
14384	1396	1/2	66 2/3

The Macallen Canopy Insulator.



These insulators are designed to go between the canopy and the wall, or ceiling where combination or straight electric fixtures are installed in buildings that are constructed with metallic lathing, or where there are metal ceilings or walls used.

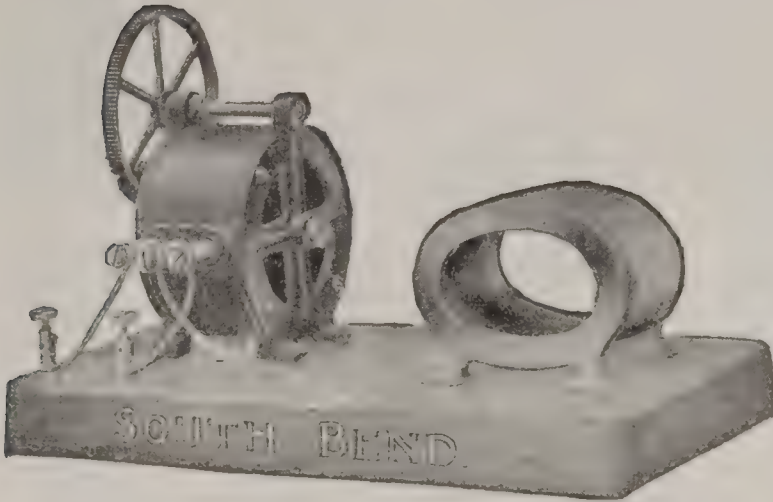
First dimensions given are sizes of canopies that will fit over the inner projection.

Second dimensions given are sizes of canopies that will fit inside of the outer projection.

List No.	Mfrs. No.	Size.	Price.	List No.	Mfrs. No.	Size.	Price.
14385	B. 9	2 1/8x2 1/4	\$0 10	14411	B.35	8 3/8x8 3/4	\$0 57
14386	B.10	2 3/8x2 1/2	10 1/2	14412	B.36	8 7/8x9	60
14387	B.11	2 5/8x2 3/4	11	14413	B.37	9 1/8x9 1/4	64
14388	B.12	2 7/8x3	11 1/2	14414	B.38	9 3/8x9 1/2	68
14389	B.13	3 1/8x3 1/4	12	14415	B.39	9 5/8x9 3/4	72
14390	B.14	3 3/8x3 1/2	12 1/2	14416	B.40	9 7/8x10	76
14391	B.15	3 5/8x3 3/4	13	14417	B.41	10 1/8x10 1/4	80
14392	B.16	3 7/8x4	14	14418	B.42	10 3/8x10 1/2	84
14393	B.17	4 1/8x4 1/4	15	14419	B.43	10 5/8x10 3/4	88
14394	B.18	4 3/8x4 1/2	16	14420	B.44	10 7/8x11	92
14395	B.19	4 5/8x4 3/4	17	14421	B.45	11 1/8x11 1/4	96
14396	B.20	4 7/8x5	18	14422	B.46	11 3/8x11 1/2	1 00
14397	B.21	5 1/8x5 1/4	20	14423	B.47	11 5/8x11 3/4	1 05
14398	B.22	5 3/8x5 1/2	22	14424	B.48	11 7/8x12	1 10
14399	B.23	5 5/8x5 3/4	24	14425	B.49	12 1/8x12 1/4	1 15
14400	B.24	5 7/8x6	26	14426	B.50	12 3/8x12 1/2	1 20
14401	B.25	6 1/8x6 1/4	28	14427	B.51	12 5/8x12 3/4	1 25
14402	B.26	6 3/8x6 1/2	30	14428	B.52	12 7/8x13	1 30
14403	B.27	6 5/8x6 3/4	33	14429	B.53	13 1/8x13 1/4	1 35
14404	B.28	6 7/8x7	36	14430	B.54	13 3/8x13 1/2	1 40
14405	B.29	7 1/8x7 1/4	39	14431	B.55	13 5/8x13 3/4	1 45
14406	B.30	7 3/8x7 1/2	42	14432	B.56	13 7/8x14	1 50
14407	B.31	7 5/8x7 3/4	45	14433	B.57	14 1/8x14 1/4	1 55
14408	B.32	7 7/8x8	48	14434	B.58	14 3/8x14 1/2	1 60
14409	B.33	8 1/8x8 1/4	51	14435	B.59	14 5/8x14 3/4	1 65
14410	B.34	8 3/8x8 1/2	54	14436	B.60	14 7/8x15	1 70

WATCH DEMAGNETIZERS.

For Direct Current.

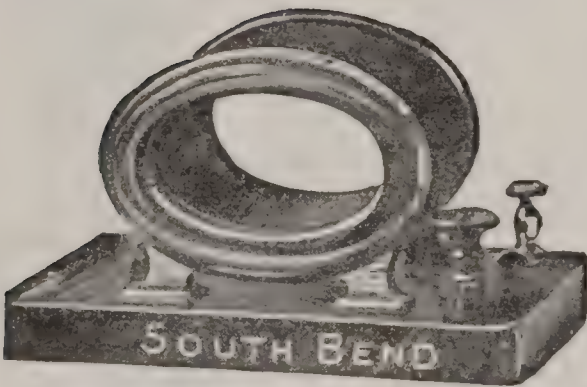


These instruments are steady money makers for the jeweler, and no shop is complete without one.

Complete with pole changer, conducting cord and plug, handsome in appearance, every instrument guaranteed.

List No.	Price.
14355	Demagnetizer for direct current only \$15 00

For Alternating Current.



This instrument is intended for use on alternating current only.

Has slate base, nickel plated end plates, and is handsomely finished throughout.

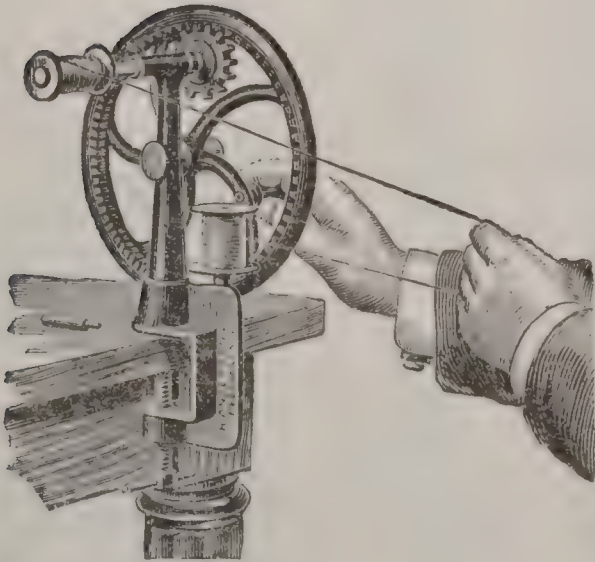
The up-to-date jeweller adds greatly to his income from watch repairs by using one of these standard instruments.

The running expense is nominal and the operation is simple and results sure.

Full directions with every instrument.
Shipped complete with conducting cord and plug.
Every instrument is guaranteed.

List No.	Price.
14356	Demagnetizer for alternating current only..... \$5 00

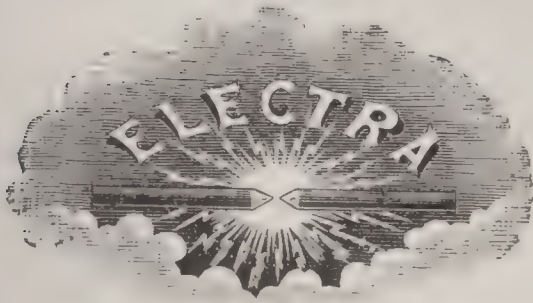
Hand Magnet Winder.



The engraving represents a magnet being wound from a spool of wire, which turns on a stud projecting from the clamp. A hub like that shown lying on the table is used to support the magnet, one end of the hub screwing on the spindle of the machine, the other end screwing into the thread in the magnet core. The spool and magnet hubs are interchangeable. To unwind a magnet, it is placed on the stud shown occupied by the spool, and the latter is screwed on the spindle. The operation of winding is clearly shown by the illustration.

List No.	Price.
5015	Complete, each,..... \$4 00

IMPORTED "ELECTRA" CARBONS.



TRADE MARK.

These Carbons are not equalled in quality and efficiency by any other foreign or domestic make.

The combustion is even and perfect.

They produce practically no dust.

They give an excellent, uniform, brilliant and steady light.

They produce the highest standard candle power in proportion to the current consumed and are therefore the most economical carbons manufactured.

"Electra" Carbons for Enclosed Arc Lamps.

ALTERNATING OR DIRECT CURRENT.

List No.	SOLID.	Price Per 1000.	List No.	SOLID.	Price Per 1000.
10740	1/2 x 12 in	\$37 90	10749	7/16 x 12 in	\$31 40
10741	1/2 x 10 "	34 50	10750	7/16 x 10 "	28 50
10742	1/2 x 9 1/2 "	32 50	10751	7/16 x 9 1/2 "	27 75
10743	1/2 x 8 "	28 00	10752	7/16 x 6 "	16 00
10744	1/2 x 7 1/2 "	27 15	10753	7/16 x 4 3/4 "	14 00
10745	1/2 x 6 "	20 50	10754	3/8 x 12 "	29 50
10746	1/2 x 5 1/2 "	18 75	10755	3/8 x 8 1/2 "	25 30
10747	1/2 x 5 "	16 75	10756	3/8 x 6 "	15 00
10748	1/2 x 4 3/4 "	16 00			
CORED					
10757	1/2 x 12 in	\$39 00	10760	1/2 x 8 in	\$29 50
10758	1/2 x 10 "	36 30	10761	7/16 x 10 "	30 00
10759	1/2 x 9 1/2 "	34 20	10762	7/16 x 9 1/2 "	29 20

"Electra" Carbons for Direct Current Open Arc Lamps.

SOFT CORED UPPERS.

Price per 1000.	Price per 1000.
7/16 x 7 1/2 in...\$20 00	9/16 x 10 in...\$28 10
1/2 x 7 1/2 ".... 22 00	5/8 x 10 ".... 32 80
9/16 x 7 1/2 ".... 23 00	11/16 x 10 ".... 38 10
5/8 x 7 1/2 ".... 27 60	13/16 x 10 ".... 43 90
11/16 x 8 ".... 33 30	
13/16 x 8 ".... 37 00	7/16 x 12 ".... 27 00
	1/2 x 12 ".... 29 60
7/16 x 10 ".... 24 75	9/16 x 12 ".... 30 80
1/2 x 10 ".... 27 50	5/8 x 12 ".... 36 50

SOLID LOWERS.

Price per 1000.	Price per 1000.
5/16 x 6 in...\$13 00	7/16 x 7 1/2 in...\$18 75
3/8 x 6 ".... 14 60	1/2 x 7 1/2 ".... 20 00
7/16 x 6 ".... 15 00	15/32 x 8 ".... 24 00
1/2 x 6 ".... 16 50	1/2 x 8 ".... 24 70
7/16 x 7 ".... 16 00	5/16 x 9 1/2 ".... 20 00
1/2 x 7 ".... 18 00	3/8 x 9 1/2 ".... 22 00
9/16 x 7 ".... 21 00	7/16 x 9 1/2 ".... 23 10
5/8 x 7 ".... 24 00	1/2 x 9 1/2 ".... 25 20
5/16 x 7 1/2 ".... 17 00	15/32 x 10 ".... 25 20
3/8 x 7 1/2 ".... 18 50	1/2 x 10 ".... 26 20

"Electra" Cored Carbons for Alternating Open Current Arc Lamps.

Price per 1000.	Price per 1000.	Price per 1000.	Price per 1000.
1/2 x 6 1/4 in...\$24 90	15/32 x 7 1/2 in...\$25 80	1/2 x 9 1/2 in...\$30 25	5/8 x 10 in...\$40 00
19/32 x 6 1/4 ".... 27 60	1/2 x 7 1/2 ".... 26 00	19/32 x 9 1/2 ".... 35 40	
7/16 x 7 ".... 24 70	19/32 x 7 1/2 ".... 31 40	5/8 x 9 1/2 ".... 38 50	1/2 x 12 ".... 35 70
1/2 x 7 ".... 25 80	5/8 x 7 1/2 ".... 32 00		9/16 x 12 ".... 37 30
19/32 x 7 ".... 28 80		1/2 x 10 ".... 32 50	19/32 x 12 ".... 40 50
5/8 x 7 ".... 30 70	7/16 x 9 1/2 ".... 27 60	19/32 x 10 ".... 36 50	5/8 x 12 ".... 45 00

Domestic Arc Light Carbons for High Tension Open Arc Lamps.

SOLID.

	Price Per 1000.
7/16 x 12 in. Plain.....	\$16 00
7/16 x 7 " Plain.....	9 40
7/16 x 12 " Coppered.....	16 80
7/16 x 7 " Coppered.....	9 80
1/2 x 12 " Plain.....	17 00
1/2 x 7 " Plain.....	10 00
1/2 x 12 " Coppered.....	18 00
1/2 x 7 " Coppered.....	10 50

1/2 inch Carbons will be furnished with ends reduced to 15/32 when so ordered, without extra charge.

9/16 x 12 in Plain.....	\$20 00
9/16 x 7 " Plain.....	11 50
9/16 x 12 " Coppered.....	21 20

SOLID.

	Price per 1000.
9/16 x 7 in. Coppered.....	\$12 30
5/8 x 12 " Plain.....	22 50
5/8 x 7 " Plain.....	13 00
5/8 x 12 " Coppered.....	24 00
5/8 x 7 " Coppered.....	14 00
5/8 x 14 " Plain.....	24 00
5/8 x 9 " Plain.....	17 00
5/8 x 14 " Coppered.....	27 00
5/8 x 9 " Coppered.....	18 00
3/4 x 12 " Plain.....	29 00
3/4 x 7 " Plain.....	15 00
3/4 x 12 " Coppered.....	31 00
3/4 x 7 " Coppered.....	16 00

3/4 inch Carbons with ends ground to fit Elliptical holders, no extra charge

IMPORTED "SHIP AND ARCO" CARBONS.
High Grade for Enclosed and Open Arc Lamps.



No expense has been spared in improving the quality of these carbons, and they are the equal of any carbon on the market

Particular attention has been given to the carbons for enclosed Arcs and we are now producing a carbon for this purpose, that will give the best possible satisfaction.

They are of uniform diameter, with a perfectly smooth surface free from cracks and burs. Quality guaranteed.

Carbons for Enclosed Arc Lamps.
ALTERNATING OR DIRECT CURRENT.

List No.	Solid.	Price per 1000.	List No.	Solid.	Price per 1000.
14440	1/2 x 12 inch.....	\$35 00	14448	7/16 x 10 inch.....	\$27 50
14441	1/2 x 10 ".....	31 20	14449	7/16 x 9 1/2 ".....	27 00
14442	1/2 x 9 1/2 ".....	30 50	14450	7/16 x 6 ".....	16 00
14443	1/2 x 8 ".....	26 50	14451	7/16 x 4 3/4 ".....	13 00
14444	1/2 x 7 ".....	23 75	14452	3/8 x 12 ".....	28 50
14445	1/2 x 6 ".....	20 00	14453	3/8 x 10 ".....	26 00
14446	1/2 x 5 ".....	16 75	14454	3/4 x 9 1/2 ".....	25 50
14447	7/16 x 12 ".....	30 00	14455	5/16 x 8 ".....	24 00

Carbons for Open Arc Lamps.
ALTERNATING CURRENT.

List No.	Price per 1000.	List No.	Price per 1000.
14456	1/2 x 7 1/2 inch..... \$26 00	14459	19/32 x 9 1/2 inch..... \$35 20
14457	1/2 x 9 1/2 "..... 29 25	14460	5/8 x 7 1/2 "..... 31 75
14458	19/32 x 7 1/2 "..... 29 50	14461	5/8 x 9 1/2 "..... 40 00

Direct Current.
CORED.

List No.	Price per 1000.	List No.	Price per 1000.
14462	7/16 x 7 1/2 inch..... \$21 50	14470	9/16 x 12 inch..... \$31 30
14463	7/16 x 10 "..... 24 50	14471	19/32 x 6 1/2 "..... 24 25
14464	7/16 x 12 "..... 27 00	14472	5/8 x 7 "..... 25 10
14465	1/2 x 7 1/2 "..... 22 00	14473	5/8 x 7 1/2 "..... 26 50
14466	1/2 x 10 "..... 27 50	14474	5/8 x 10 "..... 33 80
14467	1/2 x 12 "..... 30 00	14475	5/8 x 12 "..... 38 00
14468	9/16 x 7 1/2 "..... 23 00	14476	5/8 x 14 "..... 42 00
14469	9/16 x 10 "..... 28 00	14477	11/16 x 8 "..... 34 50
		14478	11/16 x 10 "..... 40 00

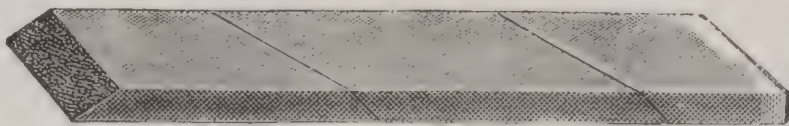
SOLID.

14479	5/16 x 6 inch.....	\$13 20	14488	7/16 x 8 1/2 inch.....	\$20 00
14480	5/16 x 7 1/2 ".....	17 00	14489	7/16 x 9 1/2 ".....	21 00
14481	5/16 x 9 1/2 ".....	18 75	14490	7/16 x 12 ".....	25 80
14482	3/8 x 6 ".....	14 60	14491	3/4 x 6 ".....	16 50
14483	3/8 x 7 1/2 ".....	18 50	14492	1/2 x 7 ".....	18 00
14484	3/8 x 9 1/2 ".....	20 50	14493	1/2 x 7 1/2 ".....	20 00
14485	7/16 x 6 ".....	15 00	14494	1/2 x 9 1/2 ".....	23 50
14486	7/16 x 7 ".....	16 25	14495	1/2 x 12 ".....	28 20
14487	7/16 x 7 1/2 ".....	18 75	14496	9/16 x 7 ".....	21 10
			14497	5/8 x 7 ".....	24 00

Special Carbons for Projectors and Theatre Lamps.
FOR ALTERNATING OR DIRECT CURRENT.

List No.	Price per 1000.	List No.	Price per 1000.
14498	1/2 x 12 inch..... \$35 50	14503	19/32 x 10 inch..... \$36 00
14499	9/16 x 6 "..... 25 00	14504	19/32 x 12 "..... 40 00
14500	9/16 x 7 1/2 "..... 27 50	14505	5/8 x 6 "..... 30 00
14501	9/16 x 10 "..... 33 60	14506	5/8 x 7 1/2 "..... 32 00
14502	9/16 x 12 "..... 37 50	14507	5/8 x 12 "..... 45 00

“EUREKA” WOVEN WIRE BRUSHES.



Pure Copper Wire Gauze.

Thick- ness	Length	Width in Inches.												
		1/2	3/4	7/8	1	1 1/8	1 1/4	1 3/8	1 1/2	1 5/8	1 3/4	1 7/8	2	2 1/2
3/16	6	30	33	38	42	46	49	53	58	61	64	68	71	87
	8	33	37	42	47	51	55	60	64	68	72	76	80	98
1/4	6	36	42	47	53	58	63	69	74	78	83	87	91	1 12
	8	40	47	53	59	65	71	77	83	88	93	98	1 02	1 25
5/16	6	.....	49	56	63	70	77	83	89	93	1 00	1 05	1 10	1 34
	8	.....	54	63	71	79	86	93	98	1 06	1 12	1 17	1 23	1 50
3/8	6	.....	.....	65	74	81	90	96	1 02	1 12	1 18	1 21	1 25	1 54
	8	.....	.....	74	83	91	98	1 07	1 15	1 22	1 29	1 30	1 41	1 62
7/16	6	.....	.....	.....	87	93	1 00	1 08	1 18	1 24	1 32	1 35	1 44	1 68
	8	.....	.....	.....	93	1 02	1 11	1 20	1 29	1 37	1 44	1 51	1 58	1 88
1/2	6	.....	.....	.....	.....	1 02	1 12	1 20	1 30	1 40	1 44	1 54	1 58	1 88
	8	.....	.....	.....	.....	1 13	1 23	1 32	1 41	1 50	1 58	1 65	1 72	2 05
5/8	6	.....	.....	.....	.....	.....	1 31	1 41	1 51	1 60	1 68	1 74	1 84	2 24
	8	.....	.....	.....	.....	.....	1 47	1 58	1 69	1 79	1 88	1 97	2 05	2 50

PERFECTION WOVEN WIRE BRUSHES.

Thickness	Width	Length	Price	Extra per inch	Thickness	Width	Length	Price	Extra per inch	Thickness	Width	Length	Price	Extra per inch
3/16	1 1/8	6	\$0 65	\$0 08	1/2	1 1/2	8	\$1 80	\$0 16	1/2	1 3/4	8	\$2 40	\$0 25
3/16	1 1/4	6	70	08	1/2	1 3/4	8	2 00	20	1/2	1 7/8	8	2 55	25
1/4	1 1/2	6	85	10	1/2	1 7/8	8	2 10	20	1/2	2	8	2 70	25
1/4	1 3/4	6	70	08	3/8	1 1/4	8	1 60	16	1/2	1 1/8	8	1 90	20
1/4	1 7/8	6	90	10	3/8	1 1/4	8	1 80	16	1/2	1 5/8	8	2 30	20
1/4	2	6	95	10	3/8	1 1/2	8	1 90	16	1/2	1 3/4	8	2 50	25
1/4	1 1/4	6	1 00	10	3/8	1 3/4	8	2 00	20	1/2	2	8	2 70	30
1/4	1 1/2	8	1 30	16	3/8	1 7/8	8	2 20	20	1/2	2 1/4	8	2 90	30
1/4	1 3/4	8	1 45	16	3/8	2	8	2 35	20	1/2	2 1/2	8	3 25	30
1/4	1 7/8	8	1 70	16	3/8	2 1/4	8	2 50	20	5/8	1 7/8	8	3 00	30
1/4	2	8	1 40	16	7/16	1 1/4	8	1 90	20	5/8	2	8	3 25	30
1/2	1 1/4	8	1 60	16	7/16	1 1/2	8	2 20	20					

CARBON BRUSHES FOR DYNAMO
AND MOTORS.

Size.	Price per 100.	Size.	Price per 100	Size.	Price per 100.	Size.	Price per 100.
2 1/2 x 2 1/4 x 1/4.....	\$6 00	3 x 3 x 1/4.....	\$9 50	4 x 1 x 1/4.....	\$4 00	5 x 2 1/2 x 1.....	\$28 50
2 1/2 x 2 1/4 x 1/2.....	8 00	3 x 3 x 1/2.....	13 00	4 x 1 x 1/2.....	6 00	6 x 1 1/2 x 1/2.....	13 00
2 1/2 x 2 1/4 x 3/4.....	10 50	3 x 3 x 3/4.....	16 50	4 x 1 x 3/4.....	7 50	6 x 1 1/2 x 3/4.....	16 50
2 1/2 x 2 1/4 x 1.....	12 50	3 x 3 x 1.....	20 50	4 x 1 x 1.....	9 00	6 x 1 1/2 x 1.....	20 50
2 1/2 x 2 x 1/2.....	7 00	3 1/2 x 1 x 1/4.....	4 00	4 x 1 1/2 x 1/4.....	6 00	6 x 1 1/2 x 1 1/2.....	24 50
2 1/2 x 2 1/2 x 1/4.....	6 50	3 1/2 x 1 x 1/2.....	5 00	4 x 1 1/2 x 1/2.....	8 50	6 x 1 1/2 x 1 1/2.....	28 00
2 1/2 x 2 1/2 x 1/2.....	9 00	3 1/2 x 1 x 3/4.....	6 50	4 x 1 1/2 x 3/4.....	11 00	6 x 2 x 1/2.....	17 00
2 1/2 x 2 1/2 x 3/4.....	11 50	3 1/2 x 1 x 1.....	8 00	4 x 1 1/2 x 1.....	13 50	6 x 2 1/2 x 3/4.....	28 00
2 1/2 x 2 1/2 x 1.....	14 00	3 1/2 x 2 x 1/4.....	7 50	4 x 2 x 1/4.....	8 50	7 x 1 1/2 x 1/2.....	15 00
3 x 1 x 1/4.....	3 00	3 1/2 x 2 x 1/2.....	10 00	4 x 2 x 1/2.....	11 50	7 x 2 x 1/2.....	20 00
3 x 1 x 1/2.....	5 00	3 1/2 x 2 x 3/4.....	13 00	4 x 2 x 1 3/8.....	23 00	7 x 2 1/4 x 1/2.....	22 50
3 x 1 x 3/4.....	6 00	3 1/2 x 2 x 1.....	16 00	5 x 1 x 1/4.....	4 00	7 x 2 1/2 x 1/2.....	25 00
3 x 1 x 1.....	7 00	3 1/2 x 3 x 1/4.....	11 00	5 x 1 1/2 x 1/4.....	8 00	7 x 2 1/2 x 3/8.....	21 50
3 x 1 1/2 x 1/4.....	4 00	3 1/2 x 3 x 1/2.....	15 00	5 x 1 1/2 x 1/2.....	10 50	7 x 2 1/2 x 5/8.....	28 50
3 x 1 1/2 x 1/2.....	6 50	3 1/2 x 3 x 3/4.....	19 50	5 x 1 1/2 x 3/4.....	14 00	7 x 2 1/4 x 3/8.....	19 50
3 x 1 1/2 x 3/4.....	8 50	3 1/2 x 3 x 1.....	24 00	5 x 1 1/2 x 1.....	17 00	7 x 2 1/4 x 5/8.....	25 50
3 x 1 1/2 x 1.....	10 00	3 1/2 x 3 1/2 x 1/4.....	12 50	5 x 1 1/2 x 1 1/2.....	23 50	7 x 2 1/4 x 3/4.....	29 00
3 x 2 x 1/4.....	6 00	3 1/2 x 3 1/2 x 1/2.....	17 00	5 x 2 x 1.....	22 50	7 x 2 1/4 x 7/8.....	32 50
3 x 2 x 1/2.....	8 50	3 1/2 x 3 1/2 x 3/4.....	22 50	5 x 2 x 1 1/4.....	27 00	7 x 2 1/4 x 1.....	35 50
3 x 2 x 3/4.....	11 00	3 1/2 x 3 1/2 x 1.....	27 50	5 x 2 1/2 x 1/4.....	13 00	7 x 2 1/4 x 1 1/2.....	39 00
3 x 2 x 1.....	13 50	3 1/2 x 3 1/2 x 1 1/2.....	38 00	5 x 2 1/2 x 1/2.....	18 00		

FLEXIBLE STEEL ARMORED CONDUCTORS.



Twin Conductors. Type BX.
Twin Conductors, Type BX.

List No.		App. Feet In Coil		Price.
14510	No. 14 B & S	250	Per 1000 Feet	\$104 00
14511	" 12 "	250	" 1000 "	135 00
14512	" 10 "	250	" 1000 "	185 00
14513	" 8 "	150	" 1000 "	210 00
14514	" 6 "	100	" 1000 "	370 00

Twin Conductors, Type BM.
For Marine Work.

14515	No. 14 B & S	200	Per 1000 Feet	\$139 00
14516	" 12 "	200	" 1000 "	189 00
14517	" 10 "	150	" 1000 "	220 00

Twin Conductors, Type BXL.

Lead Covered and Steel Armored.

14518	No. 14 B & S	200	Per 1000 Feet	\$164 00
14519	" 12 "	200	" 1000 "	211 00
14520	" 10 "	150	" 1000 "	255 00

Three Conductors, Type BXL3.

Lead Covered and Steel Armored.

14521	No. 14 B & S	150	Per 1000 Feet	\$222 00
14522	" 12 "	150	" 1000 "	257 00
14523	" 10 "	150	" 1000 "	292 00



Twin Conductors. Type BXL.
Single Conductors, Type D.

List No.		Solid		Price.
14524	No. 10 B & S	250	Per 1000 Feet	\$ 90 00
14525	" 8 "	250	" 1000 "	106 00
14526	" 6 "	250	" 1000 "	145 00

Stranded.

14527	No. 10 B & S	250	Per 1000 Feet	\$ 95 00
14528	" 8 "	250	" 1000 "	115 00
14529	" 6 "	250	" 1000 "	160 00
14530	" 4 "	200	" 1000 "	205 00
14531	" 2 "	200	" 1000 "	266 00
14532	" 1 "	100	" 1000 "	315 00

Single Conductors Type DL.
Lead Covered and Steel Armored.

Stranded.

14533	No. 10 B & S	250	Per 1000 Feet	\$120 00
14534	" 8 "	200	" 1000 "	145 00
14535	" 6 "	200	" 1000 "	196 00
14536	" 4 "	150	" 1000 "	249 00
14537	" 2 "	150	" 1000 "	319 00
14538	" 1 "	100	" 1000 "	388 00

Three Conductors, Type BX3.

14539	No. 14 B & S	250	Per 1000 Feet	\$138 00
14540	" 12 "	250	" 1000 "	170 00
14541	" 10 "	200	" 1000 "	235 00

Steel Armored Flexible Cord.

For Lamp Pendants and Portables,

Is particularly desirable for use in such places as machine shops, theatres, mills, show windows, factories, engine and boiler rooms, etc., where flexible cords are almost indispensable, and where ordinary "cord" is frequently useless on account of the exacting conditions of service.

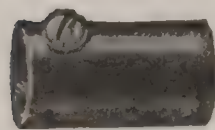
Type E.

List No.				Price.
14542	No. 18 B & S	300	Per 1000 Feet	\$58 00
14543	" 16 "	300	" 1000 "	65 00
14544	" 14 "	200	" 1000 "	95 00

(Reinforced) Type EM.

List No.				Price.
14545	No. 18 B & S	250	Per 1000 Feet	\$111 00
14546	" 16 "	250	" 1000 "	125 00
14547	" 14 "	200	" 1000 "	145 00

Flexible Steel Armored Cord Fittings.



Terminal Bushing.



Rosette Bushing.



Socket Bushing.

Steel Bushings

For Nos. 18 and 16 Type E Cord.

List No.			Price.
5950	Terminal Bushing, Per	100	\$ 6 00
5951	Rosette " "	100	13 00
5952	Socket " "	100	7 50

For No. 14 Type E Cord.

6100	Terminal Bushing, Per	100	\$ 8 00
6101	Rosette " "	100	15 00
6102	Socket " "	100	9 50

For Nos. 18 and 16 Type EM Cord.

14550	Terminal Bushing, Per	100	\$11 00
14551	Rosette " "	100	20 00
14552	Socket " "	100	12 00

For No. 14 Type EM Cord.

14553	Terminal Bushings, Per	100	\$12 00
14554	Rosette " "	100	22 00
14555	Socket " "	100	13 00

Brass Bushings.

List No.			Price.
14556	Terminal Bushings, Per	100	\$12 00
14557	Rosette " "	100	30 00
14558	Socket " "	100	14 00

For No. 14 Type E Cord.

14559	Terminal Bushing, Per	100	\$15 00
14560	Rosette " "	100	33 00
14561	Socket " "	100	17 00

For Nos. 18 and 16 Type EM Cord.

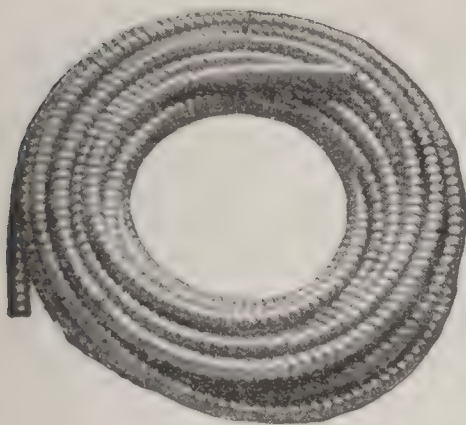
14562	Terminal Bushings, Per	100	\$24 00
14563	Rosette " "	100	40 00
14564	Socket " "	100	29 00

For No. 14 Type EM Cord.

14565	Terminal Bushings, Per	100	\$28 00
14566	Rosette " "	100	43 00
14567	Socket " "	100	33 00

GREENFIELD FLEXIBLE METALLIC CONDUIT
AND FITTINGS.

Galvanized or Enameled.



List No.		App. Feet in Coil.	Price.
14570	* $\frac{5}{8}$ inch Inside Diam. per 100 ft.	200	\$3 35
14571	$\frac{3}{4}$ " " " " " "	200	5 10
14572	$\frac{1}{2}$ " " " " " "	100	10 00
14573	$\frac{3}{4}$ " " " " " "	50	13 00
14574	1 " " " " " "	50	21 00
14575	$1\frac{1}{4}$ " " " " " "	50	31 00

* $\frac{5}{16}$ Size Not to be Used for Electric Light Conductors.

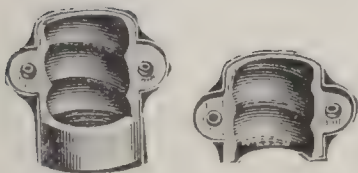
Clamp Couplings.



List No.		Price.
14576	For $\frac{3}{8}$ inch Conduit, per 100.....	\$8 50
14577	" $\frac{1}{2}$ " " " " "	9 25
14578	" $\frac{3}{4}$ " " " " "	12 00
14579	" 1 " " " " "	16 00
14580	" $1\frac{1}{4}$ " " " " "	22 00

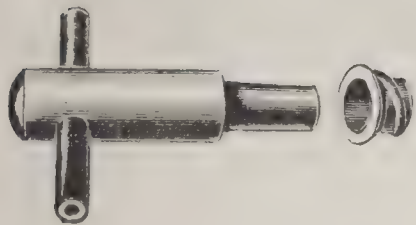
Clamp Combination Coupling.

This Coupling is Used to Continue Rigid Pipe to Flexible Conduit or vice versa.



List No.		Price.
14581	For $\frac{1}{2}$ inch Conduit, per 100.....	\$12 50
14582	" $\frac{3}{4}$ " " " " "	16 00
14583	" 1 " " " " "	21 00
14584	" $1\frac{1}{4}$ " " " " "	30 00

Lead Bushings.



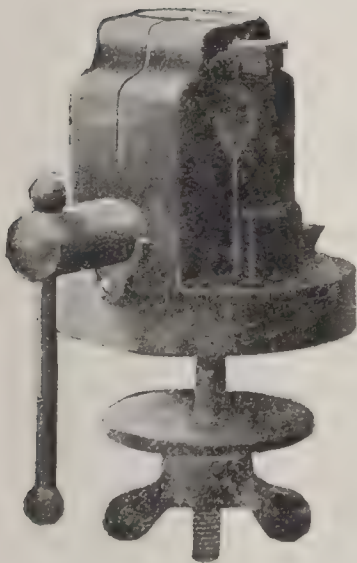
List No.		Price
14585	For $\frac{3}{8}$ inch Conduit, per 100.....	\$0 90
14586	" $\frac{1}{2}$ " " " " "	95
14587	" $\frac{3}{4}$ " " " " "	1 30
14588	" 1 " " " " "	1 70
14589	" $1\frac{1}{4}$ " " " " "	2 50

Bushing Tools.

List No.		Price.
14590	For $\frac{3}{8}$ inch Bushings, per 100... ..	\$0 22
14591	" $\frac{1}{2}$ " " " " "	22
14592	" $\frac{3}{4}$ " " " " "	30
14593	" 1 " " " " "	35
14594	" $1\frac{1}{4}$ " " " " "	50

Special Vise for Holding Conduit.

This Vise is so designed that only one is required for all sizes of conduit.



List No.		Price.
5962	Special Vise, Each	\$2 15
5963	" Reamers, Each	70

Armor Cutters.

List No.		Price.
5946	Cord Armor Cutter, Each.....	\$0 40
5947	Cable " " "	70

Fish Plugs.

These fish plugs will be found very useful in placing the conduit in finished buildings where it is desired to fish the tubes under floors or in partitions. After the conduit has been cut off square in the special vise, the fish plug should be screwed into the tube and the fish wire or drawing-in line should then be attached to the eyelet on the outer end of the plug. These fish plugs will be furnished free with conduit on application.

Sterling Flexible Steel Conduit and Fittings.
Galvanized or Enameled.



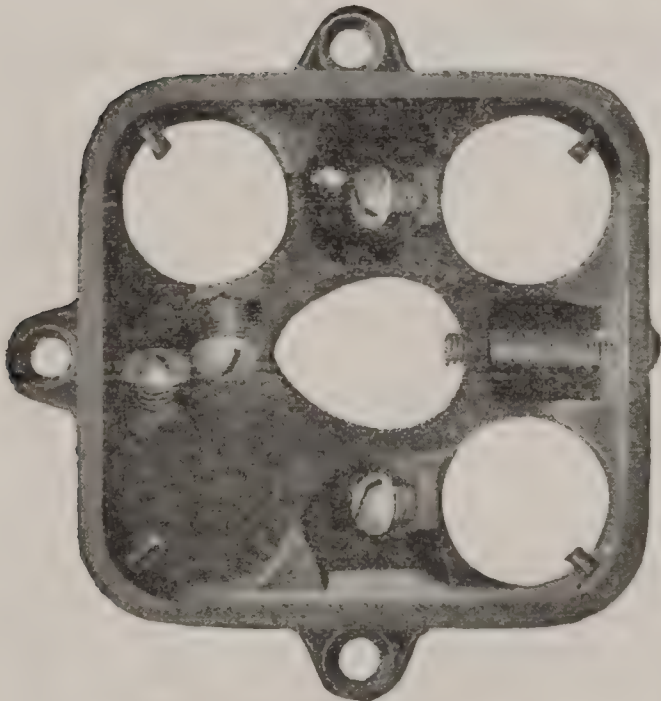
List No.		Feet Per Coil.	Price per 100 Feet.
14600	1/2 inch inside diameter	100	\$10 00
14601	3/4 " " "	50	13 00
14602	1 " " " "	50	21 00
14603	1 1/4 " " " "	50	31 00

Clamp Couplings.

14604	For 1/2 inch Conduit	Per 100	\$10 50
14605	" 3/4 " " "	" "	12 00
14606	" 1 " " "	" "	16 00
14607	" 1 1/4 " " "	" "	22 00

Box Couplings.

14608	For 1/2 inch Conduit	Per 100	\$11 50
14609	" 3/4 " " "	" "	15 00
14610	" 1 " " "	" "	20 00
14611	" 1 1/4 " " "	" "	24 00

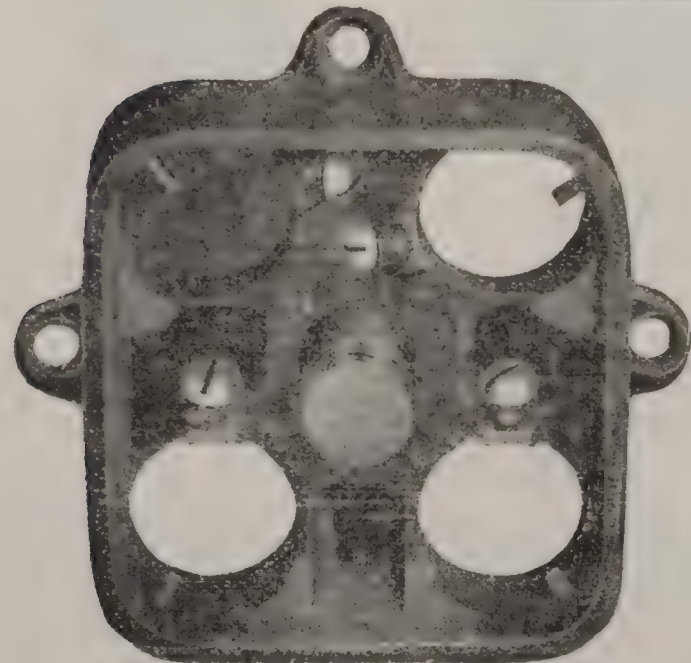


List No. 12857. Type N, Outlet Box.

Outlet Boxes for 1-2 inch Green-
field Conduit.

For Combination Work.

List No.	Mfrs. No.		Price.
10855	5220	Gas and Electric, 2 way each,	\$0 15
10857	5222	" " " 4 " "	19

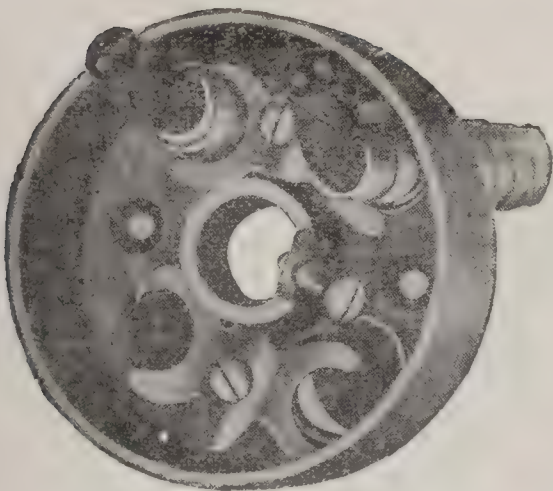


List No. 10858. Type N, Outlet Box.

For Straight Electric Work.

List No.	Mfrs. No.		Price.
10856	5221	Electric only, 2 way each,	\$0 17
10858	5223	" " 4 " "	21

Sarco Boxes for Steel Armored Cable.



Combined Outlet and Junction Box.

This box is interchangeable; any box can take from one to four cables.

Three slugs are included and set in each box underneath the spring clips.

Made in Three Styles.

List No.	Price.
14615 Box for Electric Only.. .. .	\$0 17
14616 Box Combination for 3/8 in. Gas Pipe.....	17
14617 Box Combination for 1/2 " " "	17

Any Sarco Bushing Fits This Box.

“Competition” Outlet Box.



This box does away with using different kinds of boxes on same job.

It can be used for ceiling or side bracket outlets and is especially adapted for outlets where a flat canopy is used.

Easy to Install.

Made in Three Styles.

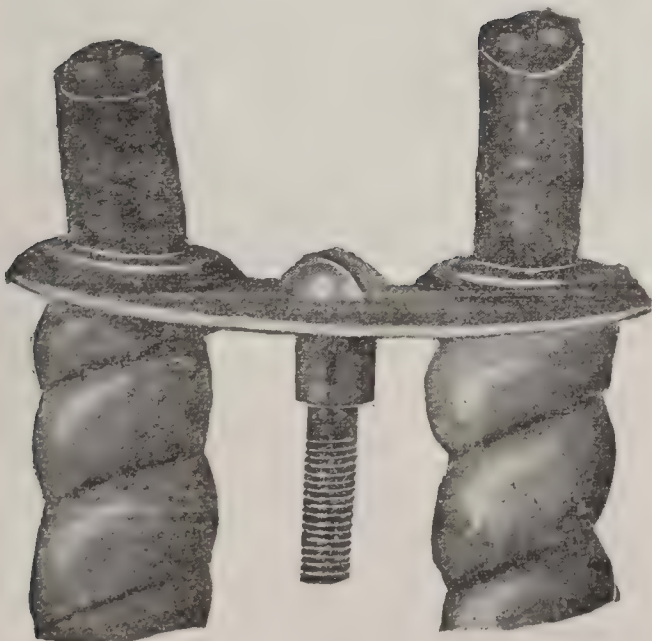
List No.	Price
14618 Box for Electric Only	\$0 21
14619 " Combination for 3/8 in. Gas Pipe,	21
14620 " Combination for 1/2 " " "	21

Any Sarco Bushing Fits This Box.

THE

Sarco Duplex Flat Bushing

For Steel Armored Cables.



Is provided with a DOUBLE SCREW. When used with the Sarco Outlet Box, remove the screw that holds spring clip in box and use in its place the bottom part of the Double Screw, fasten cables by tightening clip with ordinary screwdriver, slide the Bushing over cables close up to steel armor, and fasten Bushing with small screw that fits in top of Double Screw.

This Bushing can be connected and inspected without taking box from wall.

The Threaded Screw Hole in this Bushing permits the Outlet Box to be used as a Junction Box.

List No.	Price
14621 Duplex Bushing, each.....	\$0 07

One Bushing can Take Two Cables.

OUTLET BOXES FOR GREENFIELD CONDUIT.

List No. 10880

List No. 10879.



List No. 10882.

List No. 10883

List No. 10874.

List No. 10875.



List No. 10876.

List No. 10881.

List No. 10877.

List No. 10878.

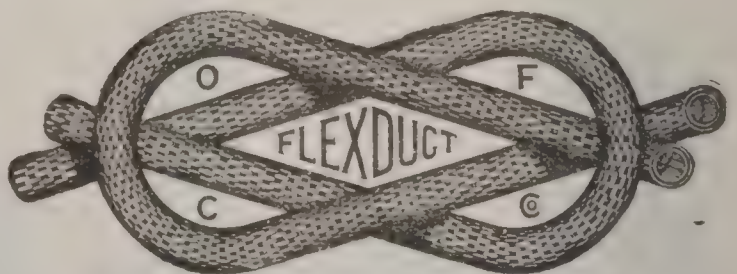
ROUND JUNCTION AND OUTLET BOXES.

SQUARE JUNCTION AND OUTLET BOXES.

List No.	Mfrs. No.		Square Boxes, 3½ x 1½ Inches.	Price for ½ Inch	Price for ¾ Inch
10874	5250	Angle Box, each.....		\$0 37	\$0 42
10875	5251	1-Way, ".....		33	36
10876	5252	2 " ".....		37	42
10877	5253	3 " ".....		41	48
10878	5254	4 " ".....		45	54
Round Boxes, 3½ x 2 Inches.					
10879	5040	Angle Box, each.....		\$0 30	\$0 35
10880	5041	1-Way, ".....		26	29
10881	5042	2 " ".....		30	35
10882	5043	3 " ".....		34	42
10883	5044	4 " ".....		38	48
Round Boxes, 2¼ x 1½ Inches.					
10884	5140	Angle Box, each.....		\$0 26	\$0 31
10885	5141	1-Way, ".....		23	26
10886	5142	2 " ".....		26	31
10887	5143	3 " ".....		29	37
10888	5144	4 " ".....		32	42



FLEXIBLE CONDUIT.



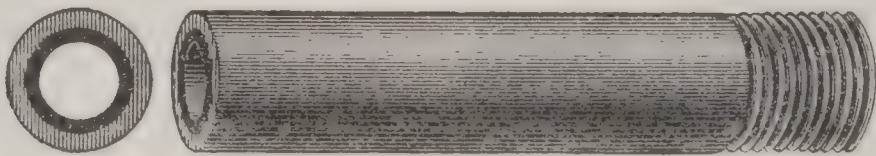
Circular Loom and Flexduct are approved by all Boards of Fire Underwriters in the United States. Endorsed and used by Architects, Electrical Engineers and Contractors.

Flexduct and Circular Loom.

List No.	Size Hole	No. of Feet in Coil	Price per Foot.	List No.	Size Hole	No. of Feet in Coil	Price per Foot.
10890	¼ in.	250.....	\$0 06	10896	1¼ in.	100.....	\$0 20
10891	⅜ in.	250.....	07	10897	1½ in.		34
10892	½ in.	200.....	08	10898	1¾ in.		40
10893	⅝ in.	200.....	10	10899	2 in.		50
10894	¾ in.	150.....	12	10900	2¼ in.		65
10895	1 in.	100.....	16				

Number of feet in coil of 1¼ in. and larger, varies from 40 to 100.

SPRAGUE IRON ARMORED CONDUIT.



HEAVY WALL IRON-ARMORED INSULATING CONDUIT.

Size I. D. (inches).....	1/2	...	7/8	...	1	...	1 1/4	...	1 1/2	...	1 3/4	...	2 1/4	...	2 3/4
Size O. D. (inches).....	.84	...	1.05	...	1.31	...	1.66	...	1.90	...	2.37	...	2.87	...	3 50
Price, per 100 Feet.....	12 50	...	16 00	...	21 00	...	28 00	...	36 00	...	47 00	...	73 00	...	107 00

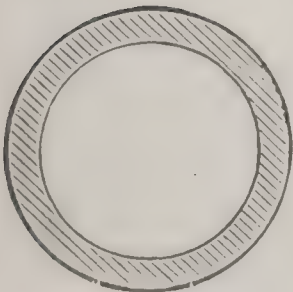
IRON ELBOWS, Price per 100.

Size.....	1/2	...	7/8	...	1	...	1 1/4	...	1 1/2	...	1 3/4	...	2 1/4	...	2 3/4
.....	19 00	...	25 00	...	39 00	...	54 00	...	110 00	...	166 00	...	265 00	...	500 00

COUPLINGS, Price per 100.

Size.....	1/2	...	7/8	...	1	...	1 1/4	...	1 1/2	...	1 3/4	...	2 1/4	...	2 3/4
Right.....	6 00	...	8 00	...	10 00	...	15 00	...	18 00	...	28 00	...	40 00	...	60 00
R. and L.....	11 00	...	15 00	...	20 00	...	25 00	...	30 00	...	50 00	...	85 00	...	120 00
Reducing.....	10 00	...	15 00	...	20 00	...	25 00	...	31 00	...	43 00	...	60 00	...	80 00

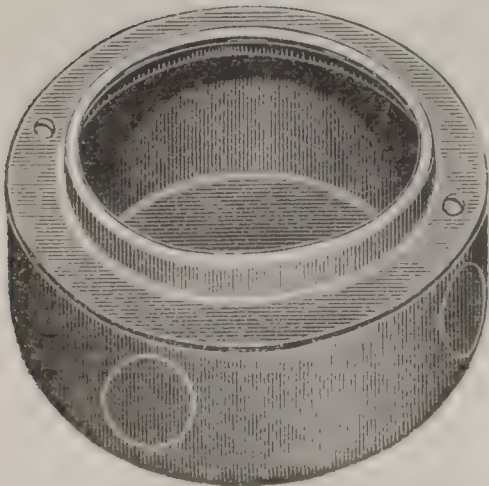
“LORICATED” AND “ARMORDUCT” CONDUIT.



Standard Size Pipe Inches.		Nominal Internal Diameter Inches. Enameled.	Actual Outside Diameter Inches	Conduit Price per 100 Feet.	Couplings. Price per 100	Elbows. Price per 100.
1/2	.....	.62	.... .84	.... \$ 12 50	.... \$ 8 00	.... \$ 22 00
3/4	.....	.82	.... 1.05	.... 16 00	.... 11 00	.... 27 00
1	.....	1.04	.... 1.31	.... 21 00	.... 13 00	.... 45 00
1 1/4	.....	1.38	.... 1.66	.... 30 00	.... 17 00	.... 70 00
1 1/2	.....	1.61	.... 1.90	.... 34 00	.... 21 00	.... 115 00
2	.....	2.06	.... 2.37	.... 47 00	.... 28 00	.... 200 00
2 1/2	.....	2.46	.... 2.87	.... 73 00	.... 40 00	.... 310 00
3	.....	3.06	.... 3 50	.... 107 00	.... 60 00	.... 900 00

Tubes in 10 feet lengths, threaded both ends, with couplings.

BOSSERT OUTLET BOXES.



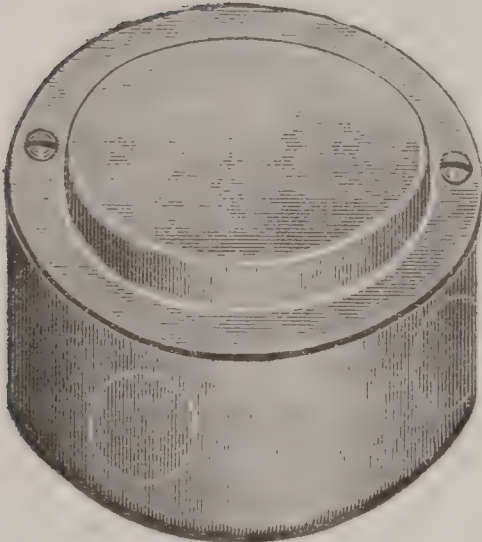
Standard Round Outlet Box.

This can be used for either ceiling or bracket outlets also branch box.

Has four plugged outlets in side and five in bottom for 1/2 inch conduit, size 4 x 1 1/2 inches.

Where a four inch canopy is used, no cover is necessary.

List No.	Price.
5965 Box only.....	per 100, \$20 00
5966 Open cover.....	6 00
5967 Closed "	6 00
10902 " " with insulating bushing.....	12 00
14622 " " " " " " for reinforced cord	13 00

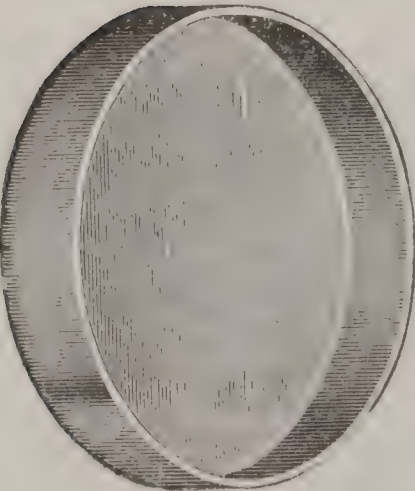


Standard Round Outlet Box for Plaster Work.

This box is extra deep and is used in connection with lath and plaster.

Size 4 x 2 1/4 inches, same number of outlets as above, arranged for fixture stems.

List No.	Price.
10003 Box only.....	per 100, \$32 00
10904 Open cover.....	6 00
10905 Closed "	6 00
10906 " " with insulating bushing.....	12 00
14623 " " " " " " for reinforced cord	13 00



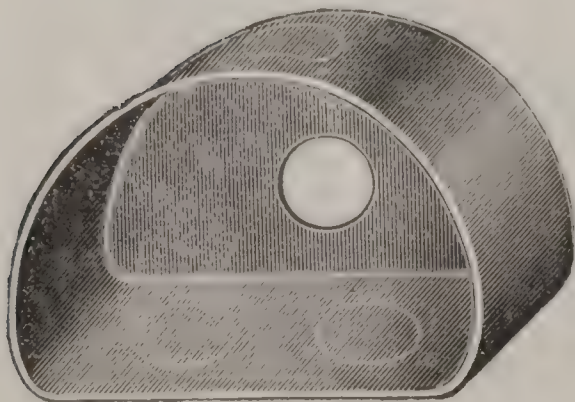
Ceiling Box.

For terra cotta work where outlets enter from back.

Size 4 inches diameter, either 1/2 inch or 3/4 inch deep.

Has five outlets in bottom, a four inch canopy will fit this box, making cover unnecessary.

List No.	Price.
10907 Ceiling box, 1/2 inch deep.....	per 100, \$12 00
10908 " " 3/4 " "	12 00

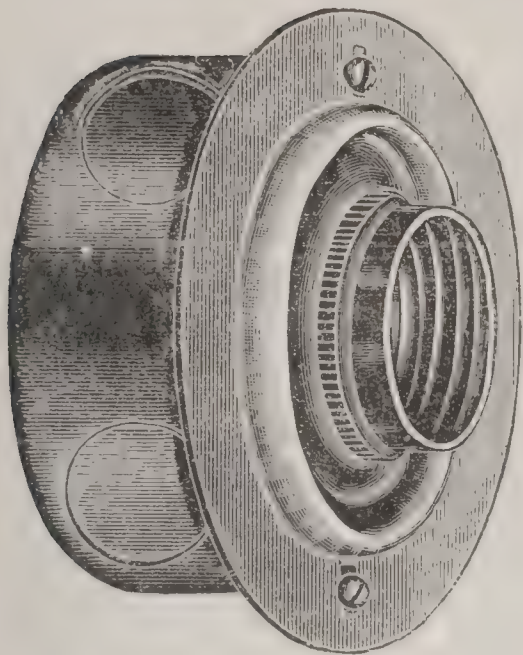


Bracket Outlet Box.

For use on side wall where two pipes enter side by side. One outlet in bottom for either gas pipe or fixture support and three plugged outlets on sides. No cover required for this box, but can be furnished if necessary. Size 3 3/8 diameter x 2 inches.

List No.	Price
10910 Bracket box only.....	per 100, \$20 00
10911 Open cover.....	8 00
10912 Closed cover.....	8 00

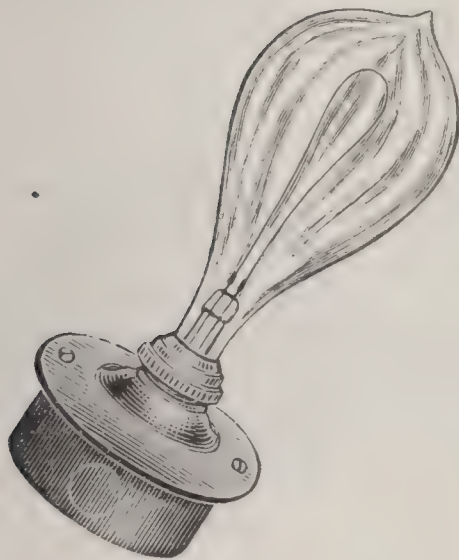
Bossert Receptacle Boxes.



Box for Front Connected Receptacles.

This box is designed to take No. 9397 G. E. Receptacle. It has new type cover either flush or lapped. For 1/2 in. pipe only

List No.	Price.
10918 Box only.....per 100,	\$20 00
10919 Cover, flush.	“ 12 00
10920 “ lapped.....	“ 12 00



Box for Back Connected Receptacles.

This box is arranged to take No. 9187 and No. 50746 G. E. Receptacles. Has four 1/2 in. outlets in side, none in back.

Polished brass cover, either flush or lapped. Shade holder can be used with this box.

List No.	Price.
10921 Box only.....per 100,	\$22 50
10923 Cover, flush brass.....	“ 12 00
10924 “ lapped brass.....	“ 12 00

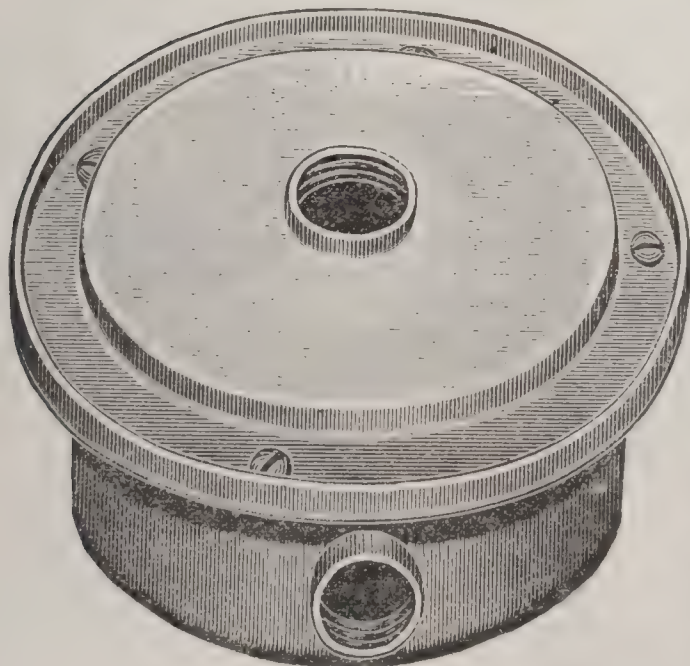
Marine and Weather Proof Box.

This box can be used for all work requiring an absolutely water-tight outlet box as well as for ordinary conduit purposes where a water or weather-proof installation is required.

Boxes are provided with threaded lugs for 1/2, 3/4 or 1 inch pipe.

A rubber gasket is also furnished which fits the flange closely, making a weatherproof junction in connection with cover.

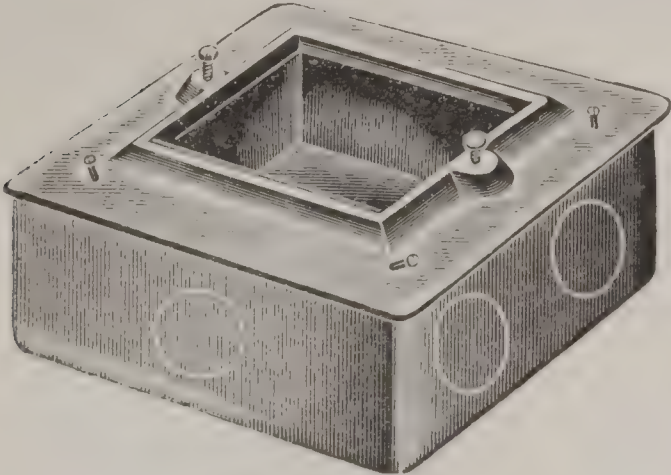
Diameter over all 4 3/4 inches. 2 1/2 inches deep.



List No.	Price.
14624 4 Threaded Outlets.....per 100,	\$30 00
14625 3 “ “ “ “ “ “	75 00
14626 2 “ “ “ “ “ “	70 00
14627 1 “ “ “ “ “ “	65 00
14623 Closed Cover Only.....	“ “ 8 00
14629 Cover with threaded lug for 3/8, 1/2 or 3/4 inch pipe.....per 100,	12 00

In ordering specify size of pipe for each outlet.

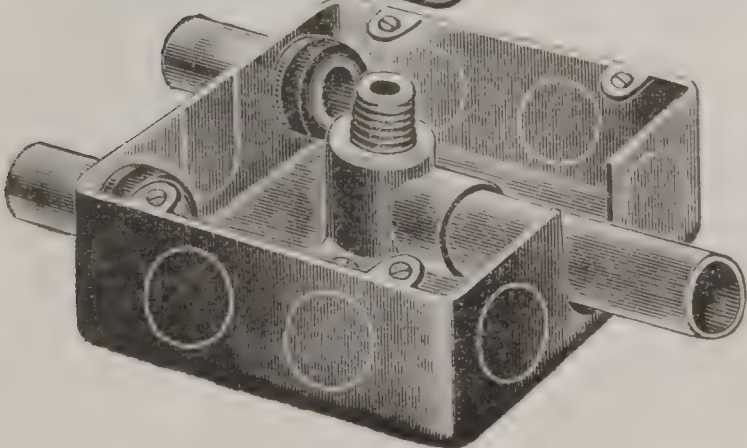
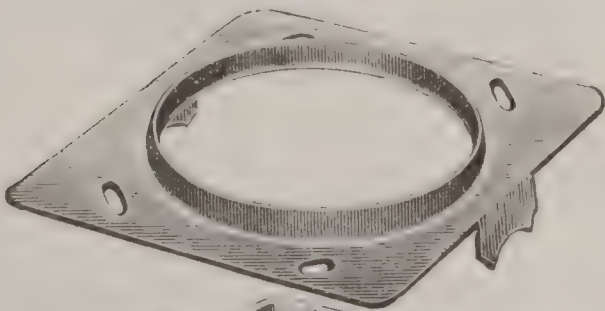
BOSSERT OUTLET AND SWITCH BOXES.



Standard Outlet and Switch Box.

This box is made with interchangeable covers so that it may be used as an outlet box or switch box as desired.
The switch covers are made adjustable to permit the switch-plate being straightened after box is in place.
Size 4 x 4 x 1½ inches.

List No.	Price.
5968 Box only.....per 100,	\$20 00
5969 Cover, (Outlet).....	8 00
5970 Closed Cover.....	8 00
5971 Cover for Hart round base Rotary switches.....	8 00
5972 Cover for push button or rectangular base switches or flush plug receptacles	8 00
14735 Closed cover with insulated bushing.....	12 00
14736 Closed cover with insulated bushing for reinforced cord.....	13 00



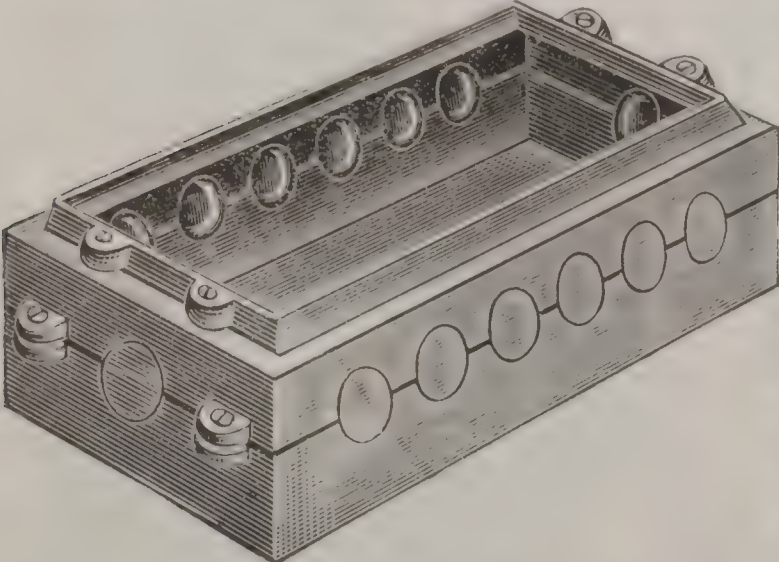
Combination Outlet Box.

This box is used for side outlets where a combination gas and electric bracket is used.
Has two gas and thirteen electric outlets.
Size 4 x 4 x 1½ inches.

List No.	Price.
10930 Box only.....per 100,	\$20 00
10931 Open cover.....	8 00
10932 Closed cover.....	8 00

THE BOSSERT STANDARD GANG BOXES.

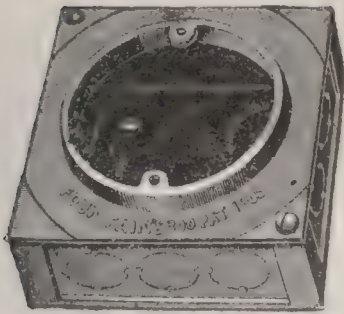
These are cast iron boxes for two or more switches, four outlets for ½ inch pipe are provided for each switch in sides and one in each end.
The outlets are closed by means of a steel disc, which is readily removed.
Boxes are drilled and tapped to take standard gang plates.



List No.	Price Each.
5975 2 Box for 2 push button switches,	\$0 55
5976 3 " 3 " " "	1 00
5977 4 " 4 " " "	1 25
5978 5 " 5 " " "	1 50
5979 6 " 6 " " "	1 75
5980 7 " 7 " " "	2 00
5981 8 " 8 " " "	2 30
5982 2 Box for 2 flush rotary switches,	65
5983 3 " 3 " " "	1 10
5984 4 " 4 " " "	1 35
5985 5 " 5 " " "	1 60
5986 6 " 6 " " "	2 00
5987 7 " 7 " " "	2 25
5988 8 " 8 " " "	2 50

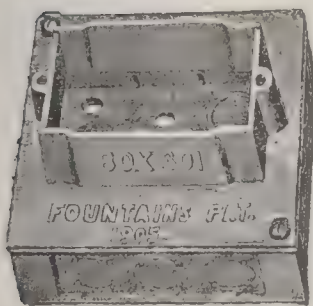
In ordering gang boxes state make of switch to be used with.

OUTLET SWITCH AND JUNCTION BOXES.



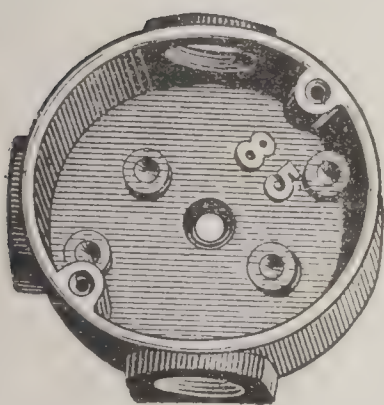
This box has twelve outlets in sides and three in bottom for $\frac{1}{2}$ inch pipe. It is drilled for fixture studs and drop ells. The switch boxes will take any of the standard push button switches or flush plug receptacles.

List No.		Price.
5997	Box complete with Outlet Cover.....	\$0 33
5998	" " " Rosette "	36
5999	" " " Closed "	33



Switch Boxes.

List No.		Price.
6000	Box for Single Flush Switch.....	\$0 36
6001	" " 2 Gang "	46



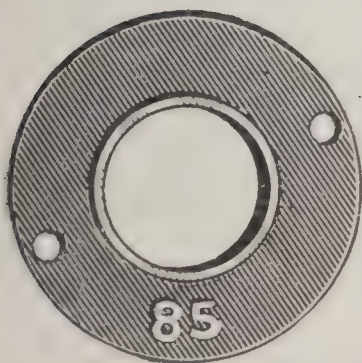
Cast Iron Receptacle Box.

This box has from one to three outlets, as ordered, and is drilled and tapped for $\frac{1}{2}$ inch pipe.

Box is designed to take No. 9397 and No. 66273 Receptacles. It will also take No. 6007 Fixture Stud.

In ordering state what Receptacle will be used.

List No.		Price.
6002	Box only.....	\$0 35
6004	Closed Cover only.....	10



Covers for Cast Iron Receptacle Box.

The Outlet in this Cover is $1 \frac{5}{16}$ inch diameter with rim $\frac{1}{4}$ inch high.

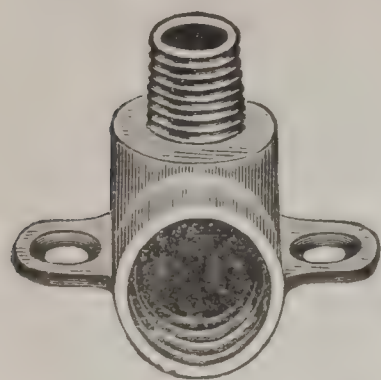
List No.		Price.
6003	Cover only.	\$0 09



Fountain's Service Ell.

Use to finish top of House Service Pipes, making a reliable water-proof job.

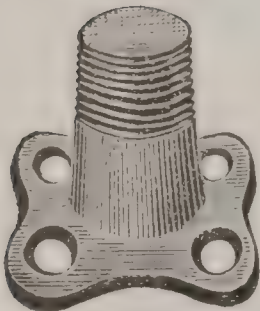
List No.		Price.
15238	1 inch.. ..	\$2 00
15239	1 $\frac{1}{4}$ "	2 00
15240	1 $\frac{1}{2}$ "	2 00
15241	2 "	4 00
15242	2 $\frac{1}{2}$ "	4 00
15243	3 "	4 00



FIXTURE STEMS AND GAS ELBOWS.

Stems are attached to box by means of stove bolts or screws which are included in prices below. No. 10925 or No. 10926 fixture stems, for straight electric fixtures, can be used in connection with boxes No. 5965, No. 10903 deep, No. 10910, No. 10918 and No. 10921.

Gas Elbows are designed to be used with box No. 10930.

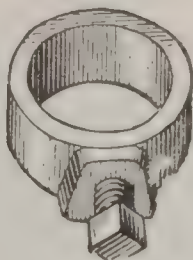


List No.		Price.
10925	Fixture Stem, 1/2 Inch Pipe.....	Per 100, \$3 00
10923	" " 3/8 "	" 8 00
10927	Gas Elbow, 1/2 "	" 12 00
10928	" " 3/8 "	" 12 00

Fixture Stud.



List No. 6007.



List No. 6008.

List No.		Price.
6007	3/8 Inch Pipe.....	\$0 07
6032	1/2 "	07

Lock Collar.

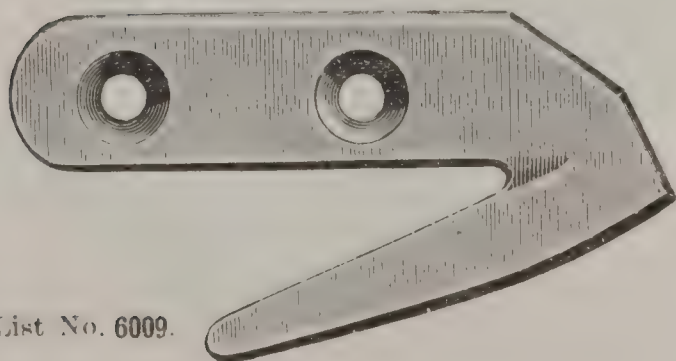
List No.		Price.
6008	3/8 Inch Pipe.....	\$0 06
6033	1/2 "	06



TOGGLE BOLTS.

Made from high grade steel, very strong and especially adapted for use on fire-proof walls or ceilings. Used principally to suspend Backing, Moulding, Wood Blocks, Arc Lamps or other electrical fittings.

List No.		Price.
9870	3/8x3 Inch.....	Per 100, \$3 75
4897	1/2 x4 "	" 4 00
9871	1/2 x5 "	" 6 50
4898	3/8 x6 "	" 6 50
9872	1/4x3 "	" 5 25
9873	1/4x4 "	" 5 75



List No. 6009.

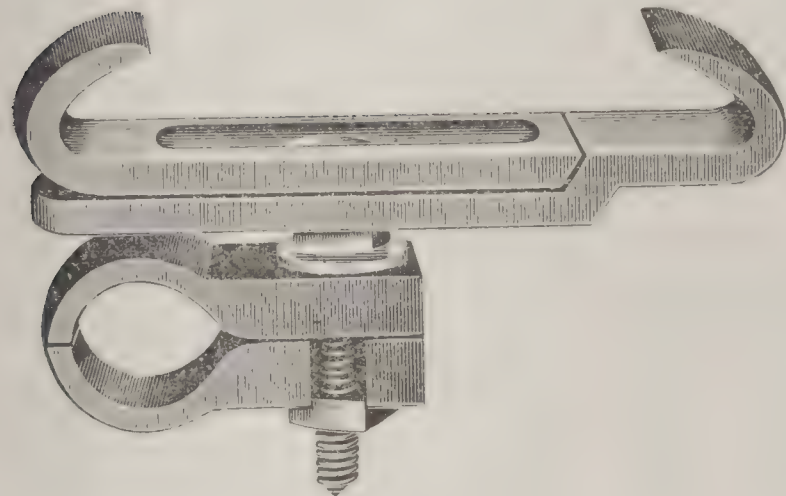
GIRDER HOOKS.

For attaching to and supporting mouldings from iron girders, wooden beams, etc. Labor saving, strong and neat.

List No.		Price.
6009	Cast Iron	Per 100, \$3 00

Beam Clamps and Pipe Hangers.

These Beam Clamps are used to suspend Conduit, Moulding, etc., from any size beam from 4 to 20 inches. Complete with Bolt 2 inches long or less as ordered.



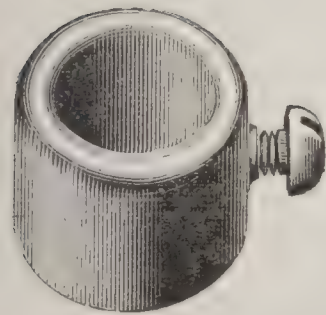
List No.		Price per 100.
14640	4 inch extreme opening,	\$14 00
14641	5 " " "	14 50
14642	6 " " "	15 00
14643	7 " " "	16 00
14644	8 " " "	16 50
14645	9 " " "	17 00
14646	10 " " "	19 50
14647	11 " " "	21 00
14648	12 " " "	22 00
14649	13 " " "	23 50
14650	14 " " "	25 00
14651	15 " " "	26 00
14652	16 " " "	27 00
14653	17 " " "	29 00
14654	18 " " "	30 00
14655	19 " " "	32 00
14656	20 " " "	34 00

Pipe Clamps.

To be used with above.

List No.		Price.
14657	Clamp for 1/2 inch Pipe,	\$ 8 00
14658	" " 3/4 " "	10 00

Sarco Bushings for Steel Armored Cable.



This bushing is designed to meet the requirements of the underwriters.

Used to protect ends of steel armored cables in switch boxes, panel-board cabinets, flush receptacle boxes, outlet and junction boxes.

Made of sheet steel heavily enameled.

List No.		Price.
14659	Enameled Bushings, per 100.....	\$3 50

T. & B. Box and Conduit Connectors.



This connector used with a T. & B. Bushing is the best device for connecting steel armored cable or conduit to any standard outlet box, or when used with a coupling for connecting steel armored with rigid conduit.

List No.		Std. Pkg.	Price. Per 100
14660	3/8 inch Connectors.....	500	\$10 00
14661	1/2 " " ".....	500	10 50

BUSHINGS AND LOCK NUTS.

Monitor Bushings and Lock Nuts.

These bushings are made from one piece of heavy sheet steel and cannot be broken. They have a heavy coat of baked insulating enamel. Wires are thoroughly protected.

List No.	Size	Std. Pkg.	Price Per 100.
10955	1/8 in.	100.	\$5 00
10956	3/4 "	100.	8 00
10957	1 "	50.	15 00
10958	1 1/4 "	50.	18 00
10959	1 1/2 "	50.	20 00
10960	2 "	25.	30 00
10961	2 1/2 "	25.	50 00
10962	3 "	25.	80 00

LOCK NUTS.

10963	1/8 inch size.	1 00
10964	3/4 "	1 50
10965	1 "	4 00
10966	1 1/4 "	6 50

T. & B. Bushings and Lock Nuts.

These bushings are well made and coated with baked enamel. Have absolutely clean threads.

List No.	Size	Std. Pkg.	Price Per 100.
10967	1/8 in.	1000.	\$5 00
10968	3/4 "	100.	8 00
10969	1 "	100.	15 00
10970	1 1/4 "	100.	18 00
10971	1 1/2 "	50.	20 00
10972	2 "	50.	30 00
10973	2 1/2 "	25.	50 00
10974	3 "	25.	80 00

LOCK NUTS.

10985	1/8 in.	1000.	1 00
10986	3/4 "	100.	1 50
10987	1 "	100.	4 00
10988	1 1/4 "	100.	6 50
10989	1 1/2 "	50.	8 00
10990	2 "	50.	10 00
10991	2 1/2 "	25.	15 00
10992	3 "	25.	30 00

Chase Nipples.

This nipple is made of metal with a hexagon head and is finished with enamel. They allow more working room in box than any form of bushing made.

List No.	Size	Price Per 100.	List No.	Size	Price Per 100.
10993	3/8 in.	\$6 00	10997	1 1/4 in.	\$18 00
10994	1/2 "	8 00	10998	1 1/2 "	20 00
10995	3/4 "	12 00	10999	2 "	30 00
10996	1 "	15 00	11000	2 1/2 "	50 00

Chase Couplings.

This coupling used with the above nipple allow of adjustability and avoid exactness in cutting conduit. A labor saver.

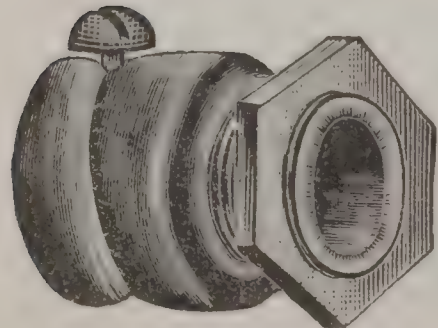
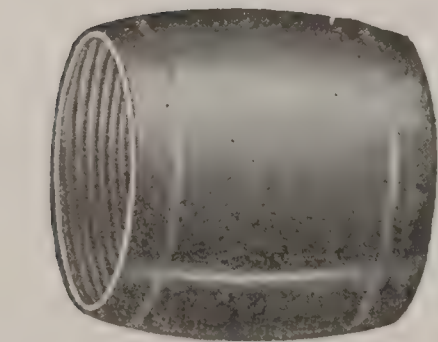
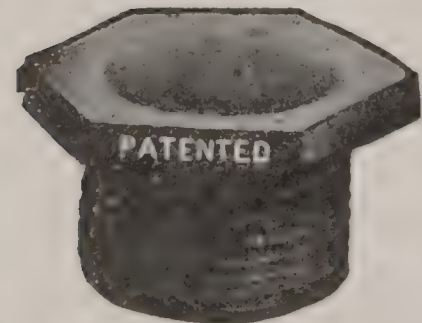
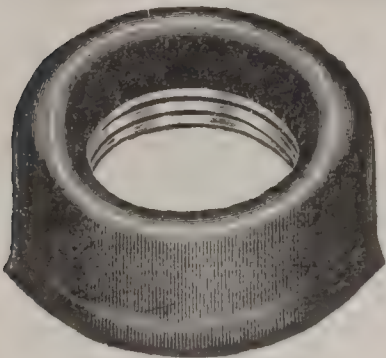
List No.	Size	Price Per 100.	List No.	Size	Price Per 100.
11001	3/8 in.	\$6 00	11005	1 1/4 in.	\$17 00
11002	1/2 "	8 00	11006	1 1/2 "	21 00
11003	3/4 "	11 00	11007	2 "	28 00
11004	1 "	13 00	11008	2 1/2 "	40 00

Bossert Flexible Conduit Bushings.

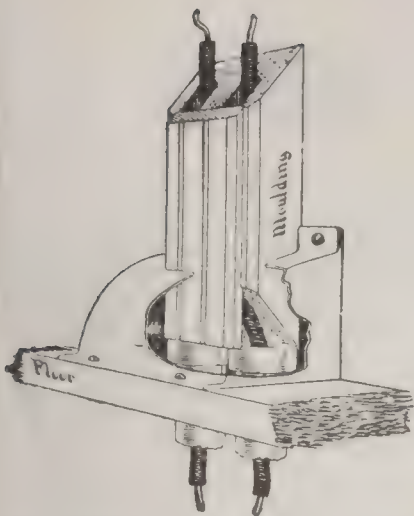
These bushings are made from one piece of heavy sheet steel and will not break, and are used in installing flexible conduit in connection with outlet boxes.

List No.	Size	Std. Pkg.	Price Per 100.
11009	1/2 in.	100.	\$10 00
11010	3/4 "	100.	15 00
11011	1 "	50.	20 00

Prices do not include Lock Nuts.



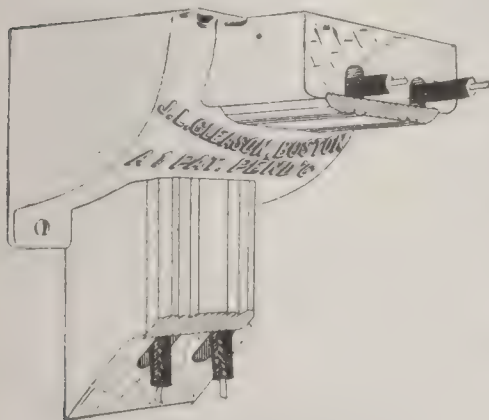
GLEASON MOULDING
BOXES.



Two Wire Regular Box Made of Sheet Iron Japanned.

These Boxes are designed primarily as a junction box for wooden mouldings at the junctions of walls and ceilings, where it is desirable to "tap off" into the next room, or into that overhead, without exposing the usual splices, torn wall paper, or broken plaster and woodwork. They are made for all standard sizes of two and three wire mouldings having grooves from one-fourth to one inch diameter by eighths.

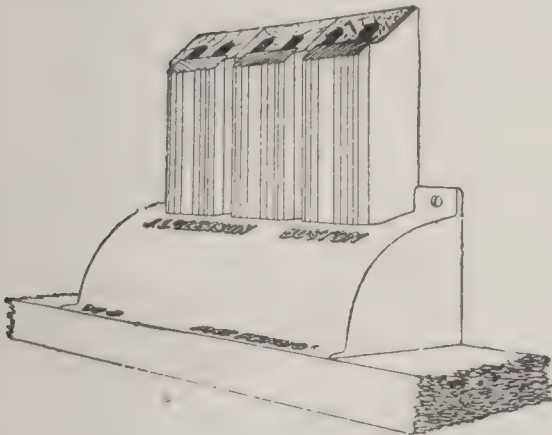
These Boxes are made in two patterns, viz: The Regular, and the Angle pattern for both two and three wire mouldings. The former has one recess and is capable of allowing one "tap" while the Angle pattern has two recesses at right angles to one another, and two moulding circuits may enter the box at those angles.



Two Wire Angle Box

Style A Boxes For Two Wire Moulding.

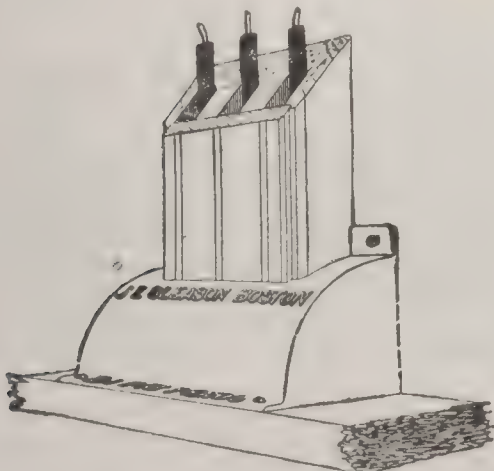
"REGULAR" BOXES.					"ANGLE" BOXES.	
List No.	Mfrs. No.	Size of Grvs. in Mldg.	No. of Circuits	Price Each.	List No.	Price Each.
14664	1	1/4 In.	1	\$0 20	14677	\$0 20
14665	2	1/4 "	2	30	14678	30
14666	3	1/4 "	3	50	14679	50
14667	4	1/4 "	4	65	14680	65
14668	11	3/8 "	1	35	14681	35
14669	12	3/8 "	2	50	14682	50
14670	13	3/8 "	3	65	14683	55
14671	21	1/2 "	1	50	14684	50
14672	22	1/2 "	2	70	14685	70
14673	31	2/8 "	1	60	14686	60
14674	41	3/4 "	1	70	14687	70
14675	51	7/8 "	1	80	14688	80
14676	61	1 "	1	90	14689	90



Two Wire 3 Circuit Gang Box.

STYLE B FOR THREE WIRE MOULDING.

"REGULAR BOXES"					"ANGLE" BOXES.	
List No.	Mfrs. No.	Size of Grvs. in Mldg.	No. of Crts.	Price Each.	List No.	Price Each.
14690	732	1/2 In.	1	\$0 30	14704	\$0 30
14691	733	3/2 "	2	45	14705	45
14692	1	1/4 "	1	30	14706	30
14693	2	1/4 "	2	45	14707	45
14694	3	1/4 "	3	60	14708	60
14695	11	3/8 "	1	45	14709	45
14696	12	3/8 "	2	60	14710	60
14697	13	3/8 "	3	75	14711	75
14698	21	1/2 "	1	60	14712	60
14699	22	1/2 "	2	75	14713	75
14700	31	5/8 "	1	85	14714	85
14701	41	3/4 "	1	75	14715	75
14702	51	7/8 "	1	85	14716	85
14703	61	1 "	1	95	14717	95



Three Wire Regular Box

Boxes for two wire mouldings are known as style A, and for three wire mouldings as style B, whether single or in gangs.

Approved by National Underwriters and Municipal Authorities generally.

EDISON SOCKET RINGS.



List Nos. 50846 and 50808.



List No. 50866.



List Nos. 31796 and 31797.

The hard rubber and the composition rings are made with both single and double flanges, while the porcelain ring is made with only the single flange. The hard rubber rings, which are genuine hard rubber, are for use in boiler rooms, laboratories, and similar places where the extreme heat or the acid fumes would affect a composition ring.

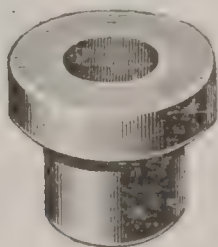
List No.		Price each.
50846	Composition Ring, Double Flange..	\$0 04
31796	Composition Ring, Single Flange...	04
50808	Hard Rubber Ring, Double Flange..	15

List No.		Price each.
31797	Hard Rubber Ring, Single Flange..	\$0 15
50866	Porcelain Ring, Single Flange.....	05

SOCKET BUSHINGS.



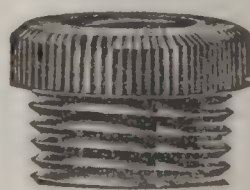
List No. 9165.



List No. 10509



List No. 10922.



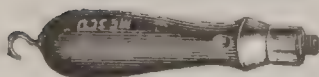
List No. 11015.

List No.	Price per 100.
9165 1/8-in. Hard Composition Bushing.....	\$7 50
10509 Soft Rubber Bushing.....	8 00

List No.		Price per 100.
10922	Hard Composition Nipple.....	\$7 50
11015	3/8-in. Hard Composition Bushing...	1 00

STANDARD SOCKET HANDLE.

Screws into the Socket, the lamp cord passing through the hole in the Handle shown in cut. Used to transfer the position of a Hanging Lamp.



List No.	Description	Price.
6040	To fit 1/8-in Socket.....	\$0 16
6043	" 3/8 "	16

COMBINATION CORD ADJUSTER AND SOCKET HOLDER.

Takes all strain from socket. Saves price of adjusting ball. Adjustment always within reach. Has metal thread to fit all standard sockets. Takes any size cord.



List No.		any size cord.	Price.
6041	To fit 1/4-in. Socket.....		\$0 12
6044	" 3/8 " ".....		12

STEWART CORD ADJUSTER.

Its usefulness appeals to you on sight. It can be quickly attached without removal of Socket, fits any cord, locks perfectly, always hangs straight, cord can be wound or looped as preferred.

List No.	Price.
6042 Per 100.....	\$2 00

BLACK ENAMELED WOOD CORD ADJUSTERS.



List No. 9064.



List No. 9093

List No.		Price.
9093	Ball Cord Adjuster, black enamel, per 100.....	\$0 90
14719	Ball Cord Adjuster, black enamel for New Code Cord, per 100.....	90
9064	Peanut Cord Adjuster, black enamel. per 100.....	90
14720	Peanut Cord Adjuster, black enamel for New Code Cord, per 100	90

UNIVERSAL CORD ADJUSTER.



Can be attached to any Drop Light without tools or trouble. Not necessary to cut the Cord or remove Lamp or Socket. Strong simple and ornamental.

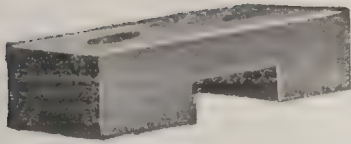
No knot, no un-tighty tangle, no loop, no abrasion of cord. Made of best quality Hardwood.

List No.		Price per 100.
11016	Standard size, 3¼ in., Black Enameled.....	\$2 50
14718	For New Code Cord, size 5½ in., black enameled	3 50

HARD FIBRE CLEATS.

Hard Fibre Cleats are neat, easy to install, good insulators. They are used for telephone and bell wiring, annunciator systems, time clocks, etc.

Also by gasoline engine, automobile and storage battery manufacturers for fastening wires to metal or slate.



STYLE A.

Made with single groove for twin or parallel wires.

$\frac{3}{4}$ in. long x $\frac{1}{2}$ in. wide x $\frac{1}{4}$ in. thick.

$\frac{1}{4}$ x $\frac{1}{8}$ groove.

List No.

Price.

14721 Single Groove Cleats.....per 1000, \$4 50

STYLE B.

Made with two grooves and especially adapted for Twisted Pair Telephone Wires.

$\frac{3}{4}$ in. long, $\frac{1}{2}$ in. wide x $\frac{1}{4}$ in. thick.

$\frac{1}{8}$ x $\frac{1}{8}$ in. groove.



List No.

Price.

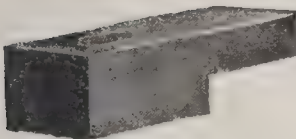
14722 Double Groove Cleats.....per 1000, \$4 50

STYLE C.

This Corner Cleat has many uses. Very handy.

$1\frac{1}{8}$ in. long x $\frac{1}{2}$ in. wide x $\frac{1}{4}$ in. thick.

$\frac{1}{4}$ x $\frac{1}{8}$ in. groove.



List No.

Price.

14723 Corner Cleats.....per 1000, \$4 00

STYLE D.

Made for three wires and takes up very little room.

$1\frac{1}{8}$ in. long x $\frac{1}{2}$ in. wide x $\frac{1}{4}$ in. thick.

$\frac{1}{8}$ x $\frac{1}{8}$ in. grooves.



List No.

Price.

14724 Three Wire Cleat.....per 1000, \$6 50

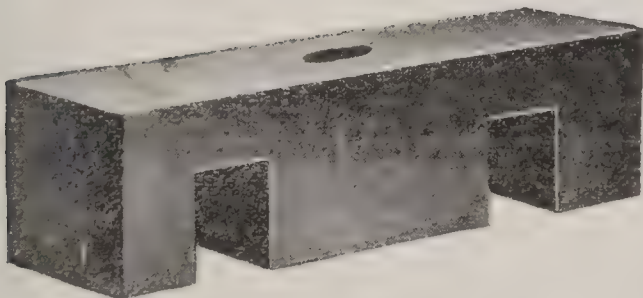
STYLE E.

For fastening electric light wires to switchboards, motor frames, starting panels, controller, etc.

This style is used for automobile and storage battery work

$1\frac{5}{8}$ in. long x $\frac{3}{8}$ in. wide x $\frac{1}{2}$ in. thick.

$\frac{1}{4}$ x $\frac{1}{4}$ in. grooves.



List No.

Price.

14725 Style E Cleatper 1000, \$15 00

Made in three colors, Red, Gray and Black. We stock Red only. Gray and Black to order.

LAMP ADJUSTERS.

Dow Lamp Adjuster.

Can be operated with one hand. Is not liable to get out of order, and is much safer than long cords, as the cord when not in use can be rolled up out of the way. In most places the adjuster can be placed on the cord now in use. It is neat and ornamental, being only three inches in diameter and will hold twelve feet of cord.

List No.	Price.
6055 Polished Brass..... Per Dozen, \$18 00	
6056 Nickel..... " 20 00	
6057 Bronze..... " 20 00	



List No. 6055

"Innovate" Adjustable Hangers.

Only Automatic Cord Adjusters.

Made without weights or springs. Producing no wear on lamp cord and approved by the National Board of Fire Underwriters.

Can be Attached in One Minute.

Adjusts Instantly and is Always Reliable.

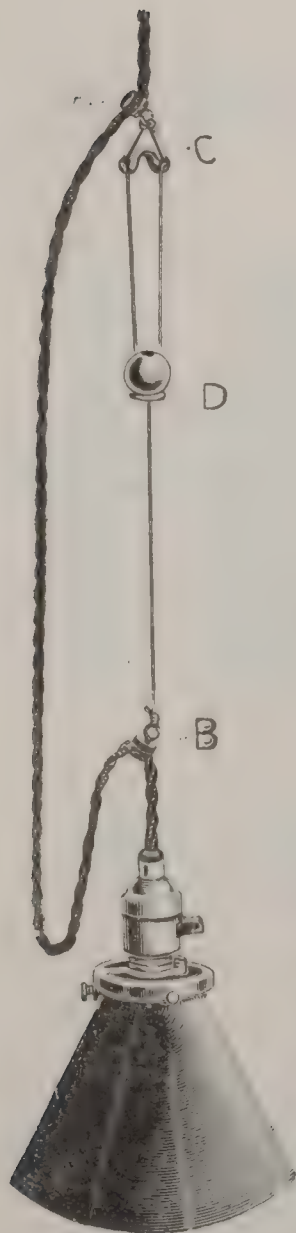
60% SAVING

By attaching an "Innovate" to all suspended lamp cords, bringing lamps low over work and using not over 10 candle.

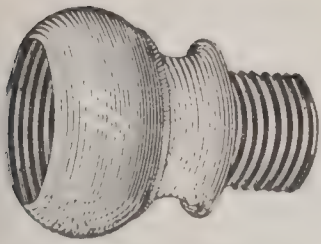
Made in three styles to handle different weight fixtures.

List No.	Price
14726 "Innovate" No. 1 adjusts fixtures up to 1 lb..... \$0 50	
14727 "Innovate" No. 2 " " " 2 " 50	
14728 "Innovate" A " " " 1½ " 35	

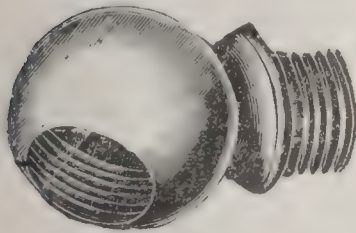
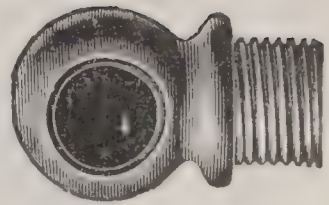
Nos. 14726 and 14727 are Oxidized Copper Finish. No. 14728 Plain Finish.



BRASS NOZZLES.

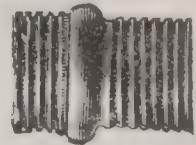


List No.	Straight Nozzle.			Price Each.
11018	$\frac{1}{8}$	x $\frac{1}{8}$	inch, iron thread.....	\$0 12
11019	$\frac{1}{8}$	x $\frac{1}{4}$	" " " " " " " " " " " "	18
11020	$\frac{1}{8}$	x $\frac{3}{8}$	" " " " " " " " " " " "	20



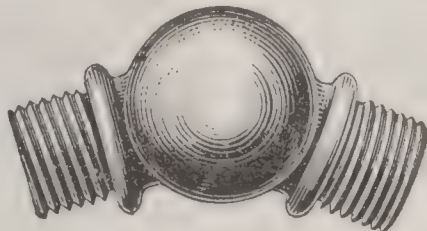
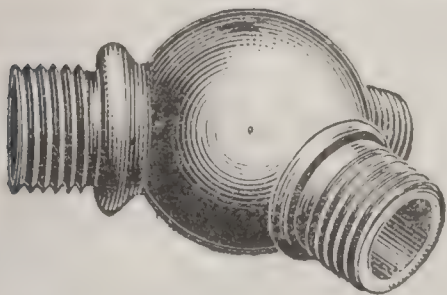
Elbow Nozzle.				
11021	$\frac{1}{8}$ x $\frac{1}{8}$	inch, iron thread.....		18
11022	$\frac{1}{8}$ x $\frac{1}{4}$	" " " "		20
11023	$\frac{7}{8}$ x $\frac{3}{8}$	" " " "		25

45 Degree Angle Nozzle.				
11024	$\frac{1}{8}$ x $\frac{1}{8}$ inch,	iron	thread.....	15
11025	$\frac{1}{8}$ x $\frac{1}{4}$ "	"	"	15
11026	$\frac{1}{8}$ x $\frac{3}{8}$ "	"	"	15

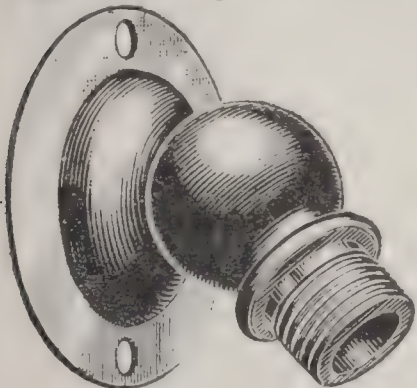


Male Brass Nipple.
List No. 11024. 11027 $\frac{3}{8}$ x $\frac{3}{8}$ in., Br.....per 100, 3 60

Electric Angle Arms or Nipples.



List No.	List No. 11029.	List No. 11028.	Price each.
11028	1 light, $\frac{1}{8}$ inch, male nipples.....		\$0 20
11029	2 " " $\frac{1}{8}$ " "		30
11030	2 " " $\frac{1}{8}$ " two male nipples, female back, $\frac{1}{8}$ in.....		30

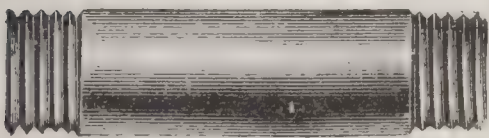


Moulding or Showcase Nozzle Bracket.

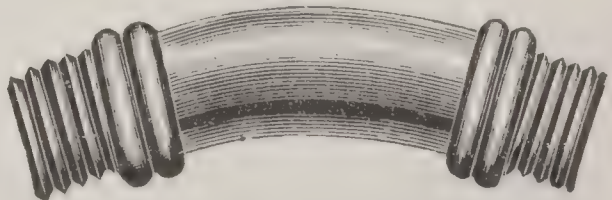
Angle nozzle with spun back. Nozzle tapped for $\frac{1}{8}$ inch socket.

List No.	Price.
11039 Each	\$0 15

Brass Extension Nipple.



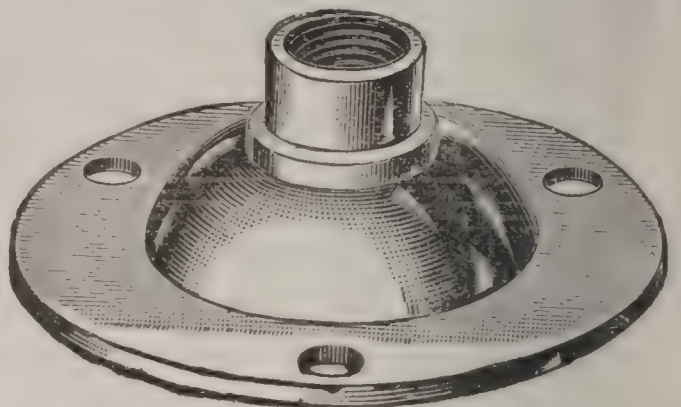
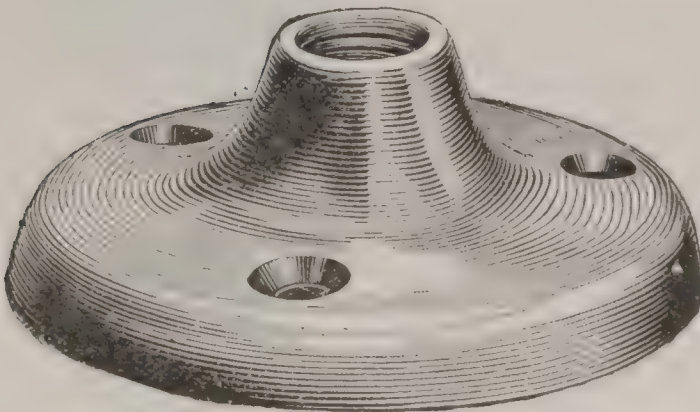
Curved Brass Extension Nipples.



BRACKET BACKS AND WALL PLATES.

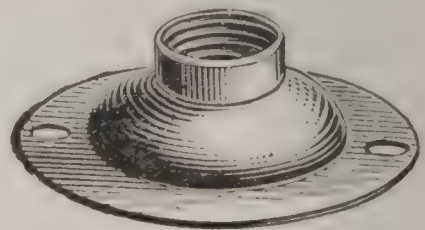
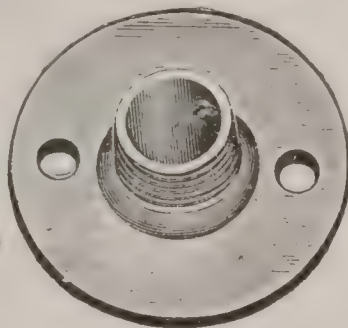
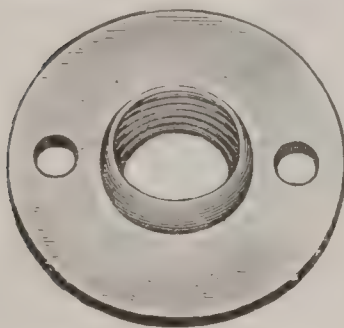
POLISHED AND LACQUERED BRASS.

For Electric Arms—For $\frac{3}{8}$ Iron Pipe.



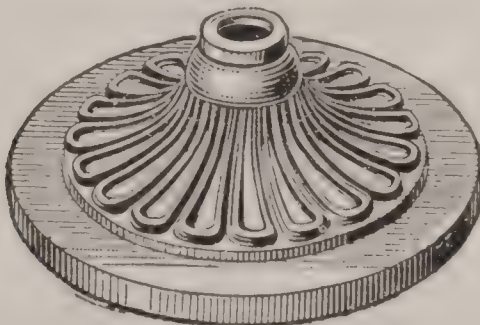
List No.	List No. 6065.	Price.
6065	$2\frac{1}{4} \times 1$, female.....	each, \$0 15
6066	$2\frac{1}{4} \times 1$, male.....	" 18

List No.	List No. 6067.	Price.
6067	$2 \times \frac{3}{8}$, female.....	each, \$0 10
6071	$2 \times \frac{3}{8}$, male.....	" 10



List No.	List No. 6068.	Price	List No.	List No. 6069	Price.
6068	$1\frac{1}{4}$ in. female..	\$0 06	6069	$1\frac{1}{4}$ in. male....	\$0 09

List No.	List No. 6070.	Price.
6070	$1\frac{1}{4}$ inch, female.....	each, \$0 08
6089	$1\frac{1}{4}$ " male.....	" 10



List No.	List No. 11042.	Cast Brass.	Price.
11042	$2\frac{3}{4}$ inch, female.....	each, \$0 30	
11043	$2\frac{3}{4}$ " male.....	" 30	

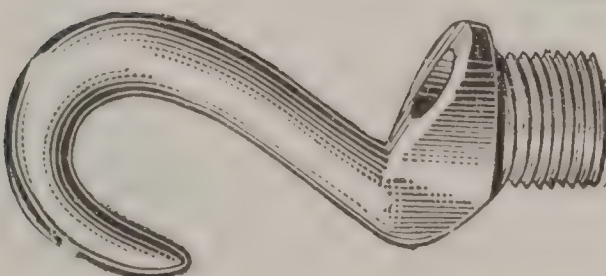
List No.	List No. 11044.	Cast Brass.	Price.
11044	$3\frac{1}{4} \times 1\frac{1}{2}$ in. female.....	each, \$0 40	
11045	$3\frac{1}{4} \times 1\frac{1}{2}$ " male.....	" 40	



GAS FIXTURE ATTACHMENT.

List No.	Price.
6112 Per 100.....	\$7 00

List No. 6112.



SOCKET HOOKS.

A very handy attachment for regular socket, allows lamp to be hung in any convenient place.

List No.	Price.
11046 $\frac{1}{8}$ in. thread to fit regular socket....	each, \$0 15

Size, 3-8 Inch Brass Measurement.



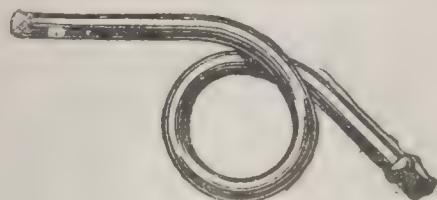
Scale, $\frac{1}{6}$.

List No.	Scale, 1/8.	Price.
6118	4 inch.....	each, \$0 14
6119	6 ".....	16
6120	8 ".....	20
6121	10 ".....	23



Scale, $\frac{1}{6}$.

List No.	Scale, $\frac{1}{16}$.	Price.
6122 6 inch.....		each, \$0 26
6123 10 ".....		" 32



Scale, $\frac{1}{6}$.

List No.	Scale, 1/8.	Price.
6124 Each.....		\$0 35



List No.		Price.
6126	6 inch.....each,	\$0 36
6127	10 "....."	43



Scale, $\frac{1}{6}$.

List No.	Scale, 1/8.	Price.
6128	4 inch.....	each, \$0 14
6129	6 ".....	" 16
6130	8 ".....	" 20
6131	10 ".....	" 23



Scale, $\frac{1}{16}$.

List No.	Scale, 1/8.	Price.
6132	4 inch.....	each, \$0 14
6133	6 ".....	" 16
6134	8 ".....	" 20
6135	10 ".....	" 23



Scale, $\frac{1}{6}$.

List No.	Scale, 1/8.	Price.
6141	Each.....	\$0 35



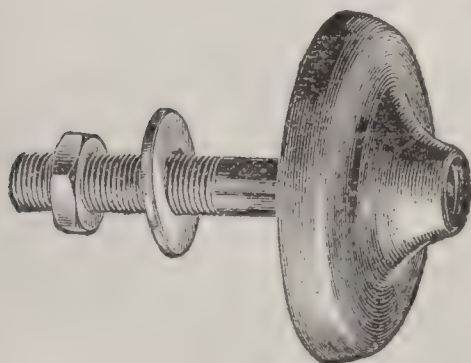
Scale $\frac{1}{6}$.

List No.	Scale 1/8.	Price.
6137	Each.....	\$0 35

Scale $\frac{1}{8}$.

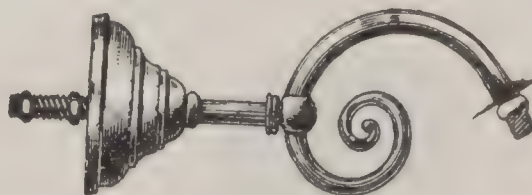
List No.	Scale $\frac{1}{8}$.	Price.
6138	Each.....	\$0 35

SWITCHBOARD BRACKETS.



For 1 to 2 inch boards.

List No.	Price.
6113 Width, 2¼ inches.....each,	\$0 32



List No.		Price
6115	1 Light, extends 12 inches.....each,	\$1 25
6114	2 " " 12 " "	1 75

CANOPIES.



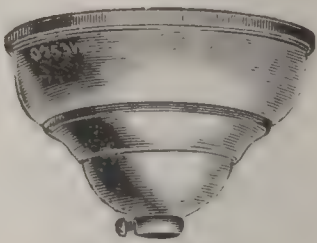
List No. 6090.



List No. 6091.



List No. 6093.



List No. 6094.

List No. 6090	Diameter, 3 inches.	Depth, 1 1/8 inches	Price each, \$0 20
6091	" 3 1/2 "	" 2 1/2 "	" 30
6093	" 5 "	" 4 "	" 60
6094	" 1 1/2 "	" 2 5/8 "	" 48

Canopy Extension Ring.



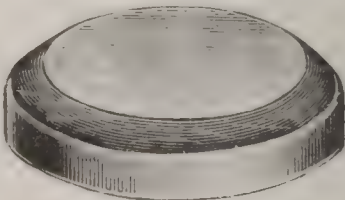
List No. 6096.

For Canopies 4 inches in diameter.

List No.		Price.
6096	1 inch deep.....each,	\$0 42
6097	1 1/2 " " " " " " " "	48
6098	2 " " " " " " " "	54

Extension rings of greater depth or for canopies larger in diameter made to order.

Wood Fixture Block.



List No.	Price	Price
	White Wood.	Hard Wood.
6076	3 inch..each, \$0 10	6081.....\$0 20
6077	4 " " " 10	6082.....20
6078	5 " " " 15	6083.....30
6079	6 " " " 18	6084.....40
6080	7 " " " 25	6061.....50

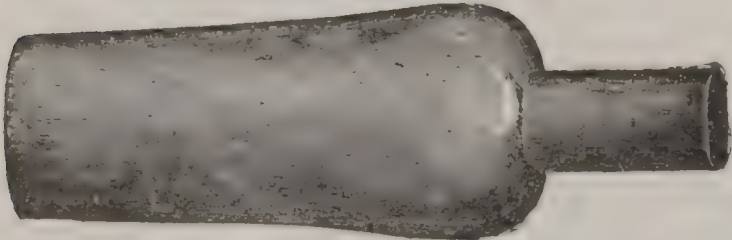
Iron Crowfoot.

Tapped from 1/8 to 1/2 inch.



List No. 6099.

List No.		Price.
6099	1/8 inch Threaded hole.....per doz.,	\$0 72
11048	1/4 " " " " " " " "	72
11049	3/8 " " " " " " " "	72
11050	1/2 " " " " " " " "	72



Soft Rubber Socket Covers.

List No.	Price.
6050	Per doz.....\$1 50

Hubbell Shade Holder.

This holder is made in two parts, consisting of a split screw collar and holder.

It may be attached to any standard socket without the use of tools, and is as firmly held in place as if made on the shell. It will not jar loose. There are no projecting screws or lugs to present an unsightly appearance.



List No.	Price.
11051	2 1/4 inch, complete.....per doz., \$0 75
11052	3 1/4 " " " " " " " " 1 50

SHADE HOLDERS.

Standard Shade Holder.

List No. 6105	2¼ in.	price, per doz.,	\$0 75
6106	3¼ "	"	1 20



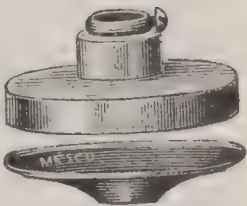
List No. 6105.

Two-Piece Shade Holder for Cluster Lights.

To slip brass tube.

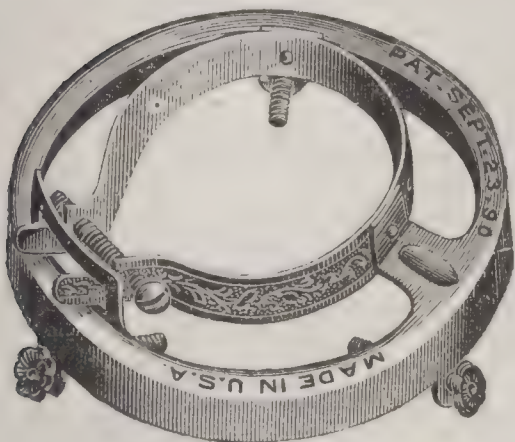
Bottom piece rests on top cluster body, to sustain shade a top piece fits neatly over shade opening and holds the shade firmly in position.

List No. 6109	2¼ inch.	Price each,	\$0 26
6110	3¼ "	"	30



List No. 6109.

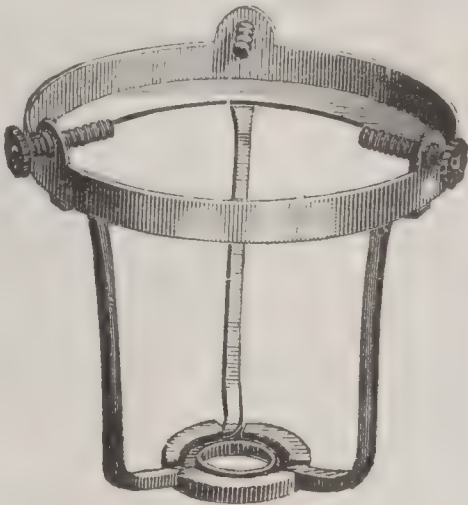
Heavy Shade Holder.



Adjustable.

List No.			Price.
11054	2¼ inch.	per doz.,	\$0 90
11055	3¼ "	"	1 60
11056	4 "	"	1 85

High Shade Holder.

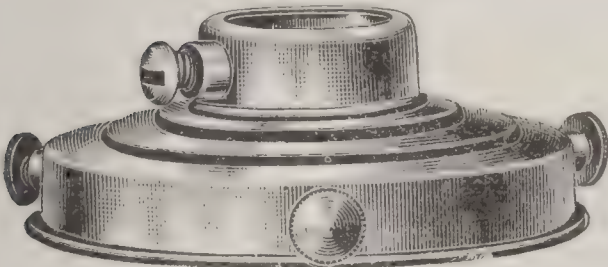


For ¾ Pipe.

List No.			Price.
11057	2¼ inch.	per doz.,	\$1 50
11058	3¼ "	"	1 80
11059	4 "	"	2 15

Cluster Shade Holder.

Polished Brass, ¾ Slip.



List No.			Price.
11060	2¼ inch.	per doz.,	\$2 40
11061	3¼ "	"	3 15

Shade Holders For Porcelain Weatherproof Sockets.

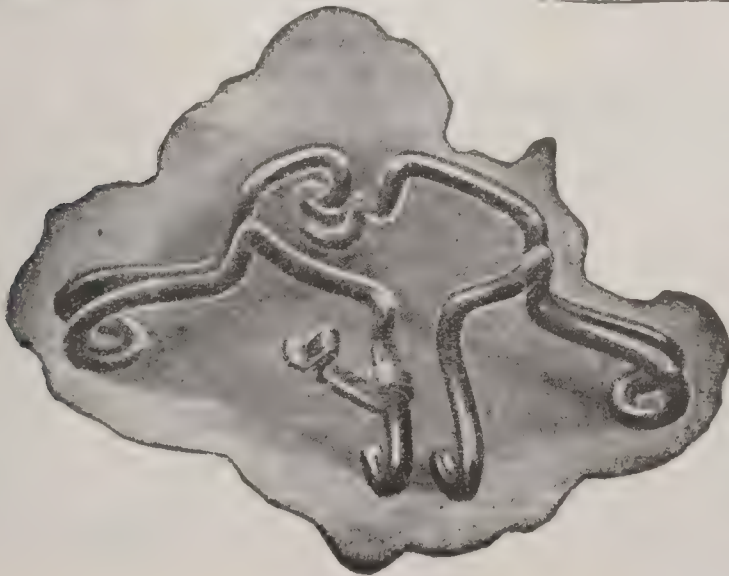


List No.	Mfrs. No.		Price Per doz.
11062	119	2¼ in. for porc. socket only...	\$0 80
11063	1190	3¼ " " " " " "	1 50

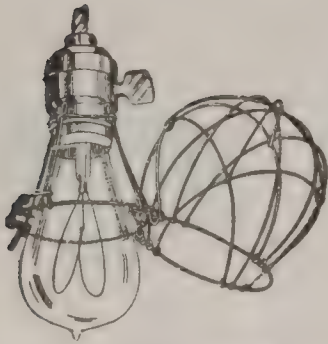
Gem Shade Holder.

A distinct advantage over regular holder due to ease of attaching to shade and socket. Holds heaviest shade rigidly. The only necessary action in attaching is the loosening of single slip catch over one arm, thereby widening the opening for both shade and socket. The simple forcing of clip over wire tightens grip upon shade and socket holding shade firmly.

List No.			Price.
11065	2¼ inch.	per doz.	\$1 20
		per gross.	9 00
11066	3¼ "	per doz.	1 50
		per gross.	15 00



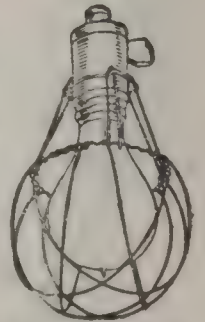
WIRE LAMP GUARDS.



List No. 11068.

The Perfection are made to open and close in the middle, so lamp can be cleaned and handled with ease, Made of Tinned Wire.

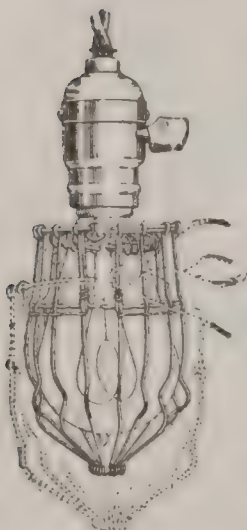
List No.	Price.
11068 Standard Weight.....	Per doz. \$1 25



List No. 11070.

This Guard opens easily at bottom to allow removal of lamp without detaching from socket. Tinned Wire.

List No.	Price.
11070 Standard Weight.....	Per doz. \$1 10



List No. 11074.

The Protector Lamp Guard is made of Steel Wire, Silver Luster Finish.

No Shadeholder necessary.

Made for 16 and 32 candle power lamps.

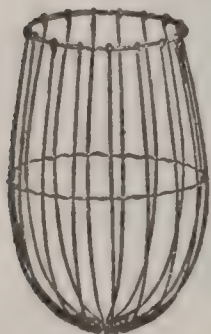
List No.	Price.
11074 Standard Weight for 16 C. P. Lamps....	Per doz. \$2 20
11078 " " " 32 " " " " " "	2 50



List No. 11072.

These Lamp Guards do not require a Shadeholder. Made of Steel Wire Tinned.

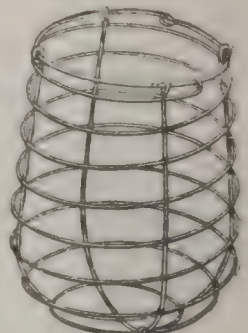
List No.	Price.
11072 Standard Weight.....	Per doz. \$1 00



List No. 14730

The Factory Type Lamp Guard fits a 3¼ in. Shadeholder. Made of Heavy Wire Tinned.

List No.	Price.
14730 Standard Weight.....	Per doz. \$1 25



List No. 14731.

Extra Heavy Lamp Guard for factories, mines, etc. Fits 3¼ in. Shadeholder. Heavy Wire Tinned.

List No.	Price.
14731 Standard Weight.....	Per doz. \$1 35

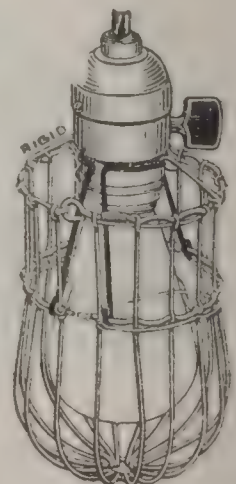


Protector A Lamp Guard is the handiest, causes least obstruction to light and stays on lamp. One of the best lamp guards made. Requires no Shadeholder.

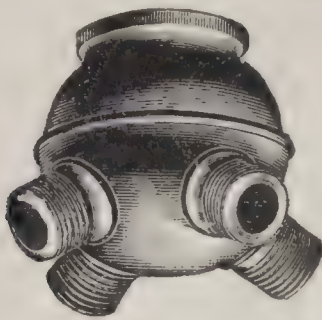
List No.	Price.
14732 Protector A Lamp Guards.....	Per doz. \$2 00

Protector H Lamp Guard is the best lamp guard on the market. Requires no Shadeholder. Does not obstruct light. Made of Steel Wire Tinned.

List No.	Price.
14733 Protector H Lamp Guard.....	Per doz. \$2 30



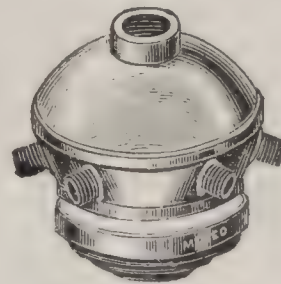
SMALL SPUN CLUSTER BALL.



List No. 6152.

List No.		Price.
6151	2 Light.....each,	\$0 20
6152	3 "....."	25
6153	4 "....."	30
6154	5 "....."	35
6144	6 "....."	40

SEPARABLE BOX CLUSTER.



List No. 6148.

List No.		Price.
6145	2 Light.....each,	\$0 40
6146	3 "....."	50
6147	4 "....."	60
6148	5 "....."	70
6149	6 "....."	80
6150	8 "....."	1 00

SEPARABLE BELL CLUSTER.



List No. 11081.

Polished Brass.

Tapped for $\frac{3}{8}$ inch iron pipe. Removable cap for wiring.

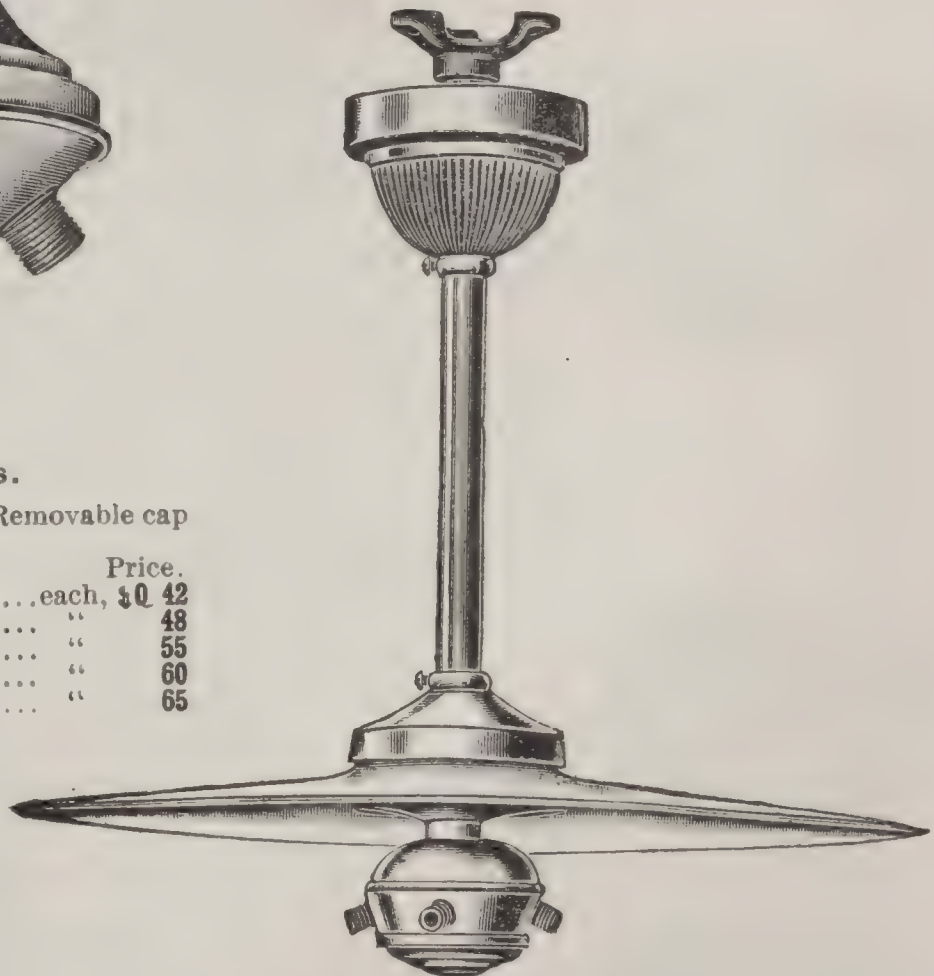
List No.		Price.
11080	2 Light.....each,	\$0 42
11081	3 "....."	48
11082	4 "....."	55
11083	5 "....."	60
11084	6 "....."	65

Extra Length Stem Additional.

List No.		Price.
6167	$\frac{5}{8}$ in. Brass tube.....per ft.	\$0 45
6168	$\frac{3}{4}$ " " case and iron pipe, "	50
6169	$\frac{7}{8}$ " " " " " " " "	52
6170	1 " " " " " " " "	55

**CLUSTER FIXTURES.
COMPLETE.**

Cluster Fixture wired complete, including canopy crowfoot, shade holder, 18 inch porcelain shade, 12 inch stem of $\frac{5}{8}$ inch brass tube and sockets.



With Keyless Sockets.

Edison, T. H. or Westinghouse.

List No.		Price.
6155	2 Light, complete.....	\$3 20
6156	3 "....."	3 74
6157	4 "....."	4 30
6158	5 "....."	4 85
6159	6 "....."	5 40
6160	8 "....."	6 69

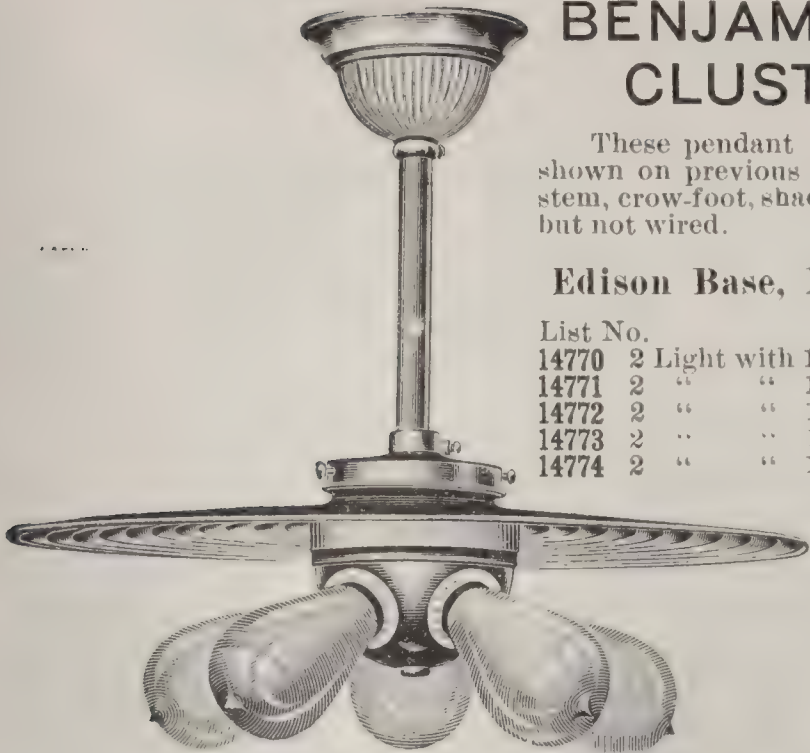
For Key Sockets, add four cents per socket.

BENJAMIN WIRELESS
CLUSTERS COMPLETE.

These pendant clusters are made up from cluster bodies shown on previous page, and consist of cluster body, 12 in. stem, crow-foot, shade holder and canopy, complete with shade, but not wired.

Edison Base, Multiple, with Style 8 Bodies.

List No.						Price.
14770	2	Light with	12 in. flat	Opal	Shade.....	\$2 40
14771	2	"	"	X-Ray	"	3 60
14772	2	"	"	Aluminum	"	2 90
14773	2	"	"	Mirror	"	2 80
14774	2	"	"	Tin	"	2 10



Edison Base, Multiple, with Style 2 Bodies.

List No.						Price.
14775	2	Light with	14 in. flat,	Opal	Shade.....	\$2 85
14776	2	"	"	X-Ray	"	4 25
14777	2	"	"	Aluminum	"	3 35
14778	2	"	"	Mirror	"	3 30
14779	2	"	"	Tin	"	2 45
14780	3	"	"	Opal	"	3 10
14781	3	"	"	X-Ray	"	4 50
14782	3	"	"	Aluminum	"	3 60
14783	3	"	"	Mirror	"	3 55
14784	3	"	"	Tin	"	2 70
14785	4	"	"	Opal	"	3 35
14786	4	"	"	X-Ray	"	4 75
14787	4	"	"	Aluminum	"	3 85
14788	4	"	"	Mirror	"	3 80
14789	4	"	"	Tin	"	2 95

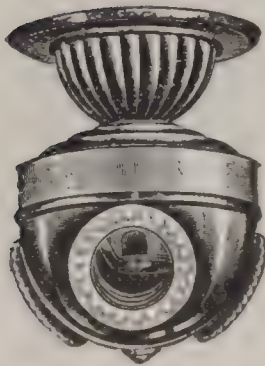
Edison Base Series, with Style 2 Bodies.

List No.						Price.
14790	2	Light with	14 in. flat,	Opal	Shade.....	\$2 90
14791	2	"	"	X-Ray	"	4 25
14792	2	"	"	Aluminum	"	3 40
14793	2	"	"	Mirror	"	3 35
14794	2	"	"	Tin	"	2 50
14795	3	"	"	Opal	"	3 20
14796	3	"	"	X-Ray	"	4 60
14797	3	"	"	Aluminum	"	3 70
14798	3	"	"	Mirror	"	3 65
14799	3	"	"	Tin	"	2 80

Edison Base Multiple, Style 7 Bodies.

List No.						Price.
14800	2	Light with	14 in. flat,	Opal	Shade.....	\$4 15
14801	2	"	"	X-Ray	"	5 55
14802	2	"	"	Aluminum	"	4 65
14803	2	"	"	Mirror	"	4 60
14804	2	"	"	Tin	"	3 75
14805	3	"	"	Opal	"	4 40
14806	3	"	"	X-Ray	"	5 80
14807	3	"	"	Aluminum	"	4 90
14808	3	"	"	Mirror	"	4 85
14809	3	"	"	Tin	"	4 00
14810	4	"	"	Opal	"	4 65
14811	4	"	"	X-Ray	"	6 05
14812	4	"	"	Aluminum	"	5 15
14813	1	"	"	Mirror	"	5 10
14814	1	"	"	Tin	"	4 25
14815	5	"	"	Opal	"	4 90
14816	5	"	"	X-Ray	"	6 30
14817	5	"	"	Aluminum	"	5 40
14818	5	"	"	Mirror	"	5 35
14819	5	"	"	Tin	"	4 50
14820	6	"	"	Opal	"	5 15
14821	6	"	"	X-Ray	"	6 55
14822	6	"	"	Aluminum	"	5 65
14823	6	"	"	Mirror	"	5 60
14824	6	"	"	Tin	"	4 75

BENJAMIN WIRELESS CLUSTERS.

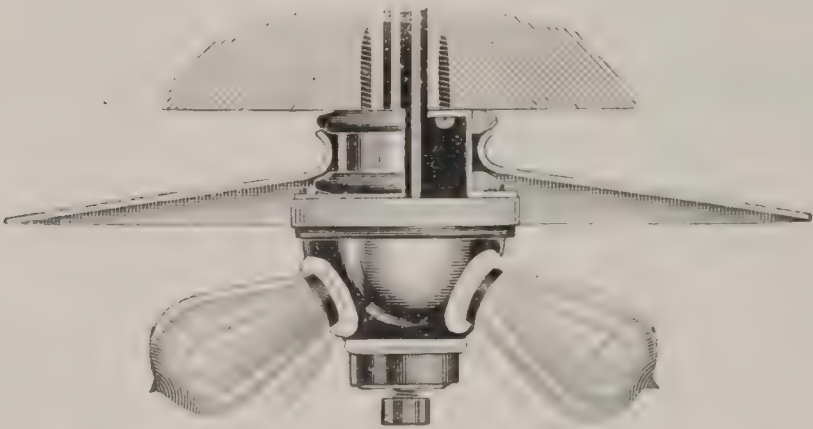


Ceiling Types.

Cluster with Ceiling Flange.

Multiple.			Series.		
List No.		Price.	List No.		Price.
14830	2 Light.....	\$1 75	14833	2 Light.....	\$1 80
14831	3 "	2 00	14834	3 "	2 10
14832	4 "	2 25			

Ceiling Cluster.

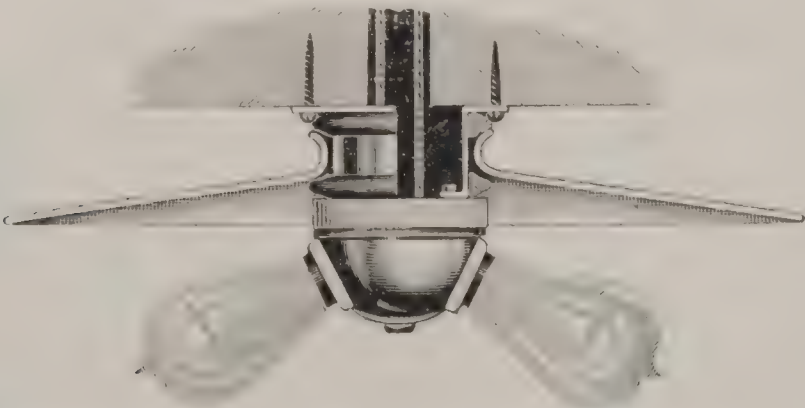


This cluster has metal sub-base for supporting Opal Shades close to ceiling; shade is supported between rubber rings, with indicating switch attached, complete with shades.

Multiple.

List No.		Price.	List No.		Price.
14835	2 Light with 14 in. opal shade....	\$3 80	14840	2 Light with 16 in. opal shade....	\$4 20
14836	3 " " " " " "	4 05	14841	3 " " " " " "	4 45
14837	4 " " " " " "	4 30	14842	4 " " " " " "	4 70
14838	5 " " " " " "	4 55	14843	5 " " " " " "	4 95
14839	6 " " " " " "	4 80	14844	6 " " " " " "	5 20

Car Clusters.



This cluster has metal sub-base with rubber rings for holding shade firmly.

Series.

List No.		Price.	List No.		Price.
11174	2 Light with 14 in. opal shade....	\$2 60	11181	2 Light with 16 in. opal shade...	\$3 00
11175	3 " " " " " "	2 90	11182	3 " " " " " " ...	3 30
11176	4 " " " " " "	3 40	11183	4 " " " " " " ...	3 80
11177	5 " " " " " "	3 65	11184	5 " " " " " " ...	4 05

For price without shade deduct 60c. from 14 in. price.
Extra charge for divided circuits.

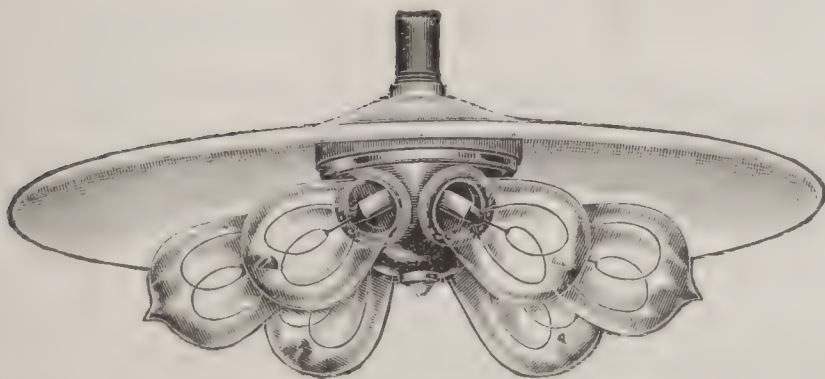
Lamps and wiring not included.

Edison Base Multiple with Style 8 Bodies.

Edison Base Multiple with Style 2 Bodies.Edison Base Multiple with Style 1 Bodies.Edison Base Multiple with Style K Bodies.Edison Base Multiple with Style 7 Bodies.

With Switch in Base.

Benjamin Weather Proof Cluster.



The socket-shells are of copper, the casings of aluminum.

The cluster back is sealed in by a flange tapped for a $\frac{1}{2}$ in. pipe.

The shades are heavy, well calculated to withstand hard usage and tapped for $\frac{1}{2}$ in. pipe only.

Cluster with 15 inch White and Green Enameled
Painted Iron Shade.

Multiple.

Series.

Cluster with 15 inch Porcelain Enameled Steel
Shade.

Multiple.

Series.

14881	2	Light with Style 2 Body	3	85
14882	3	" " " 2	4	15
14883	4	" " " 1	4	65
14884	5	" " " 1	4	90

BENJAMIN CLUSTERS FOR LIGHTING HALLS, CHURCHES AND PUBLIC BUILDINGS.



These clusters are composed of a metal shell of neat design, with openings in which are located porcelain lamp receptacles of special design.

The receptacles are easily connected by means of binding screws inside of body.

Clusters are provided with 12 inch stems, crow feet and canopies complete with shades.

Style A takes a 5/8 in. brass stem.

Style B takes a 1/2 in. iron pipe and a 1 inch brass casing.

Made in Edison base only.

Style A.

Cluster Body Only.

List No.		Price.
14888	8 Light.....	\$5 00
14889	10 "	5 60
14890	12 "	6 20

Cluster Without Shade.

List No.		Price.
14891	8 Light.....	\$5 65
14892	10 "	6 25
14893	12 "	6 85

Cluster Complete with 24 Inch Plain Mirror Reflector.

List No.		Price.
14894	8 Light.....	\$10 15
14895	10 "	10 75
14896	12 "	11 35

Cluster Complete with 24 Inch Band Edge Mirror Reflector.

List No.		Price.
14897	8 Light.....	\$13 65
14898	10 "	14 25
14899	12 "	14 85

Finished in Polished Brass. For Aluminum Body add 25c. to List Price. For extra length Stem 45c. per foot. Lamps not included.



Style B.

Cluster Body Only.

List No.		Price.
14900	15 Light.....	\$8 00
14901	16 "	8 40
14902	20 "	10 00

Cluster Without Shade.

List No.		Price.
14903	15 Light.....	\$8 95
14904	16 "	9 35
14905	20 "	10 95

Cluster Complete with 30 Inch Plain Mirror Reflector.

List No.		Price.
14906	15 Light.....	\$16 15
14907	16 "	16 55
14908	20 "	18 15

Cluster Complete with 30 Inch Band Edge Mirror Reflector.

List No.		Price.
14909	15 Light.....	\$19 95
14910	16 "	20 35
14911	20 "	21 95

Finished in Polished Brass. For Aluminum Body add 25c. to List Price. Extra length Stem, 45c. per foot.

THE ARC-BURST CLUSTER.



A special wireless cluster forms the base of the Arc-Burst, around which are placed high efficiency meridian type lamps together with appropriate reflectors, so designed and placed in relation to the lamps that the light produced is radiated in the most effective manner.

The brilliant, yet noticeably, soft and steady light of the Arc-Burst suggests its use for a wide range of conditions where satisfactory results are difficult to obtain, and compared with the flickering and unsteady burning of even an up-to-date Arc Lamp, its merits are at once apparent, each Arc-Burst one 50 candle power lamp in the bottom opening, which together with its accompanying diffusing reflector, adds greatly to the cluster value, both as to appearance and actual light distribution.

The Turn Down Feature.

The Arc-Burst can be furnished with a turn down feature, which consists of isolating the center lamp by means of a three wire connection in cluster body, whereby such lamp can be operated independently of the side lights by the use of a suitable switch.

The Arc Cluster, complete, consists of cluster body 15 inch stem ($\frac{3}{8}$ inch iron pipe and $\frac{3}{4}$ inch brass casing) $4\frac{1}{2}$ x 4 inch canopy, crowfoot, shade holders, reflectors and lamps, wired ready to hang,

Regular Type D. Arc-Burst.

List No.	No. of Lamps.	Total C. P.	Voltage	Price.
14915	3	100	90-130	\$11 05
14916	4	125	" "	12 15
14917	5	150	" "	13 25
14918	6	175	" "	14 35
14919	7	200	" "	15 45
14920	3	100	200-250	12 05
14921	4	125	" "	13 35
14922	5	150	" "	14 65
14923	6	175	" "	15 95
14924	7	200	" "	17 25

Turn Down Type D Arc-Burst.

List No.	No. of Lamps.	Total C. P.	Voltage	Price.
14925	3	100	90-130	\$11 45
14926	4	125	" "	12 55
14927	5	150	" "	13 65
14928	6	175	" "	14 75
14929	7	200	" "	15 85
14930	3	100	200-250	12 45
14931	4	125	" "	13 75
14932	5	150	" "	15 05
14933	6	175	" "	16 35
14934	7	200	" "	17 65

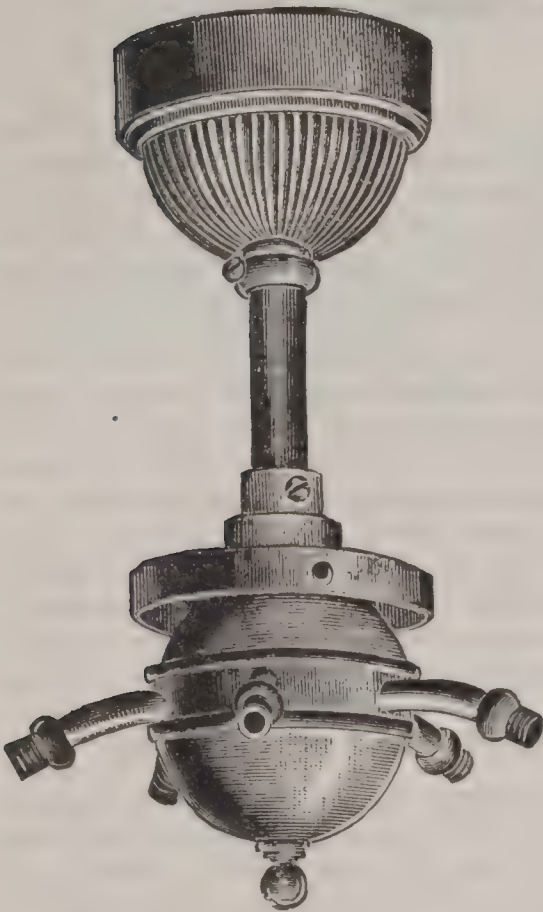
For pendant switch with 3 ft. lamp cord add \$1.00 list to above prices, additional cord 10 cents per yard list.

Specify lamp voltage when ordering.

Finishes,—the cluster body is finished in frosted aluminum, metal parts above the shade are polished brass.

For Meridian Lamps see Index.

CLUSTER FIXTURES COMPLETE.

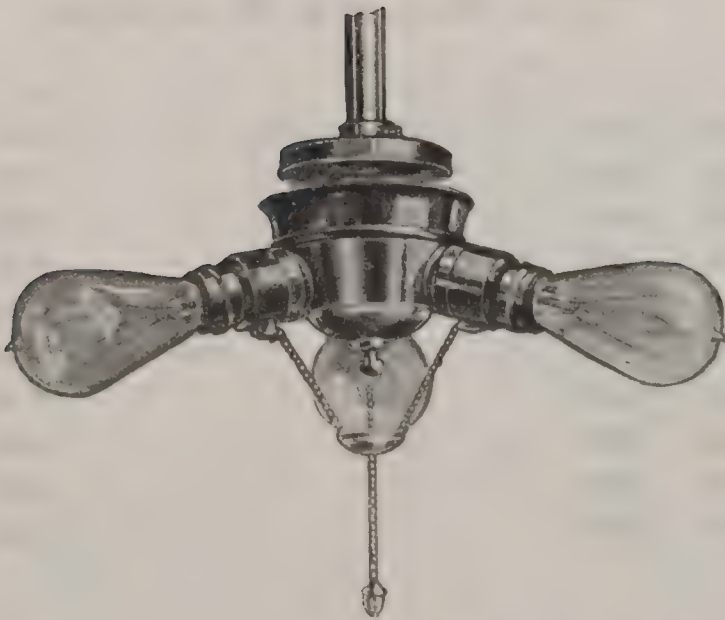


This complete outfit consists of separable cluster ball, 12 inch stem, crow foot, canopy, and shade holder. Ready to attach sockets and shade. Bottom ornament can be removed and bushing inserted for pendant switch.

List No.		Price.
6175	2 Light Complete as Above.....	\$2 20
6176	3 " " "	2 30
6177	4 " " "	2 40
6178	5 " " "	2 60
6179	6 " " "	2 80
6180	7 " " "	3 00
6181	8 " " "	3 20
6182	9 " " "	3 50
6183	10 " " "	3 80
6184	11 " " "	4 10
6185	12 " " "	4 40
6186	14 " " "	5 00
6187	16 " " "	5 60

Cluster Ball Only.

List No.		Price.
6188	2 Light Ball Only.....	\$1 25
6189	3 " " "	1 35
6190	4 " " "	1 45
6191	5 " " "	1 65
6192	6 " " "	1 85
6193	7 " " "	2 05
6194	8 " " "	2 25
6195	9 " " "	2 55
6196	10 " " "	2 85
6197	11 " " "	3 15
6198	12 " " "	3 45
6199	14 " " "	4 05
6200	16 " " "	4 65



Hubbell Standard Pull Clusters.

The principal feature of our cluster is the separate control of each light by a pendant chain connecting our Pull Sockets to a common center. By a straight pull all of the lights may be turned on or off. By pulling the chain to one side any one or more of the lights may be operated. Another distinctive feature is the fastening of the socket cap to the cluster center by riveting, thereby lessening the danger of the socket becoming loose or unfastened. Complete with shade holder, chain and acorn, not wired. Standard length of chain measured from bottom of cluster, 3 feet. Cluster furnished for 5/8 inch stem unless otherwise specified.

List No.		Std. Pkg.	Price.	List No.		Std. Pkg.	Price.
11188	2 Lt. St. Pull Clust., Ed. Base	10	\$3 25	11193	2 Lt. St. Pull Clust., T.H. Base	10	\$3 25
11189	3 " " " " "	10	4 10	11194	3 " " " " "	10	4 10
11190	4 " " " " "	10	5 00	11195	4 " " " " "	10	5 00
11191	5 " " " " "	10	5 95	11196	5 " " " " "	10	5 95
11192	6 " " " " "	10	6 85	11197	6 " " " " "	10	6 85

If furnished with chain over 3 feet in length add to list, per foot, 10c.
If furnished with sockets wired, add to list, per light, 20c.

FRINK MIRROR REFLECTORS.

These Reflectors have solid metal frames and are lined with Silver-plated Corrugated Mirror, or Opal Glass in sections, rigidly held in place, making them far superior to the ordinary opal reflector shades, as there is no danger of the pieces breaking and falling on the heads of persons beneath, as with the opal shades; and now that we are able, by the aid of expensive machinery, to furnish at about the same price as the ordinary opal reflector shades, they are being specified by leading architects and engineers and everywhere extensively used.



List No. 6211
PLAIN.

PRICE INCLUDES :

REFLECTOR, with cluster, canopy, crowfoot, and 18 inch stem wired. Without sockets or lamps.

List No.	Diam. in Inches.	Glass.	No of Lamps.	Price Each
6210	18	Best Mirror.	3	\$6 00
6211	20 $\frac{1}{4}$	" "	4	6 75
6212	25	" "	6	8 75
6213	30	" "	8	14 00
6214	35	" "	10	19 50



List No. 6216
Brass Band,
Plain or
Embossed.

REFLECTOR, with cluster, canopy, crowfoot, and 18 inch stem wired. Without sockets or lamps.

List No.	Diam. in Inches.	Glass.	No. of Lamps.	Price Each.
6215	18	Silver Corrugated.	3	\$7 50
6216	20 $\frac{1}{4}$	" "	4	8 25
6217	25	" "	6	10 75
6218	30	" "	8	16 50
6219	35	" "	10	22 75

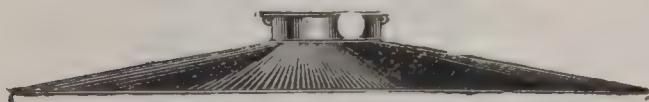
Wired for sockets as indicated ; if ordered for more or less sockets, add or deduct fifteen cents each, list.

For price of reflector, cluster and holder for $\frac{1}{4}$ inch iron pipe, deduct \$2.00 from list

If so ordered, these fixtures will be furnished with nipple to take stalactite, at an additional cost of 25 cents each.

TIN AND ALUMINUM SHADES.

Plain Flat Tin Shades.



List No.		Price.
11208	6 inches, 2 1/4 inch holder, per doz.	\$1 75
11209	7 " 2 1/4 " "	1 75
5475	8 " 2 1/4 " "	1 75
5476	10 " 2 1/4 " "	2 25
5477	12 " 2 1/4 " "	3 00
5478	14 " 3 1/4 " "	4 30
5479	16 " 3 1/4 " "	5 50
5480	18 " 3 1/4 " "	7 00
11210	20 " 3 1/4 " "	8 50
11211	24 " 3 1/4 " "	11 00

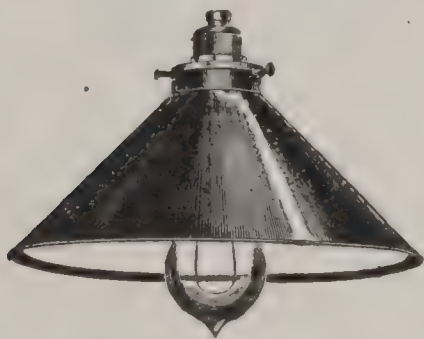
Half-cone Tin Shades.

White Enameled.



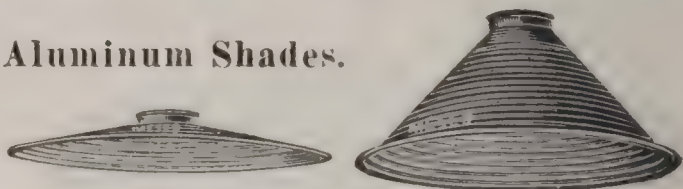
List No		Price.
5483	8 inches, 2 1/4 inch holder, per doz.	\$1 75
5484	10 " 2 1/4 " "	2 25
5485	12 " 2 1/4 " "	3 00
5486	14 " 3 1/4 " "	4 30
5487	16 " 3 1/4 " "	5 50
5488	18 " 3 1/4 " "	7 00

Full-cone White Enameled Tin Shades.



List No.		Price.
11212	6 ins. diam., 2 1/4 in. holder, per doz.	\$2 30
11213	7 " 2 1/4 " "	2 30
5489	8 " 2 1/4 " "	2 30
5490	10 " 2 1/4 " "	3 00
5491	12 " 2 1/4 " "	4 00

Aluminum Shades.



FLAT. DEEP CONE.

List No.	Corrugated.	Price.
5511	10 inch for 2 1/4 holder.....each,	\$0 85
5512	12 " 2 1/4 " "	1 00
5513	14 " 3 1/4 " "	1 20
5514	16 " 3 1/4 " "	1 50
5515	18 " 3 1/4 " "	2 00

DEEP CONE.

List No.	Corrugated.	Price.
5516	8 inch for 2 1/4 holder.....each,	\$0 90
5517	10 " 2 1/4 " "	1 00

Sarco Aluminum Shades.

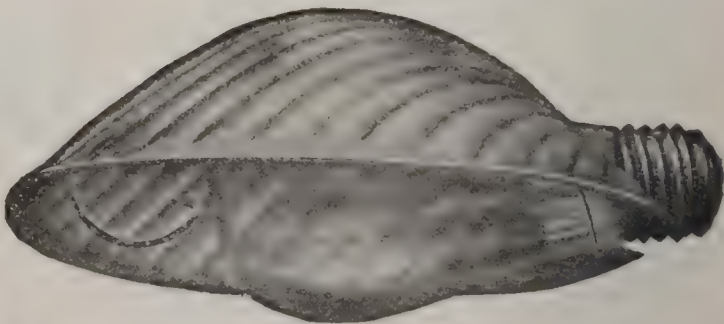


DEEP CONE.

A new reflector that increases the illuminating power of a lamp many times.

List No.	Price.
11200	8 inches, 2 1/4 inch holder, per doz. \$8 40
Green enameled outside, polished inside.	

Sarco Aluminum Parabolic Reflector.



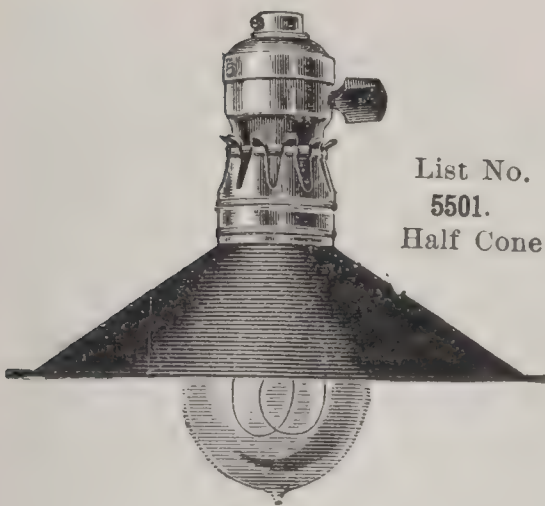
Clamps the lamp; no shade holder required. Will fit any socket or receptacle.

List No. 11201 is particularly adapted for window and show case lighting, where in addition to a strong reflected light, a WIDE DIFFUSION OF ILLUMINATION is desired.

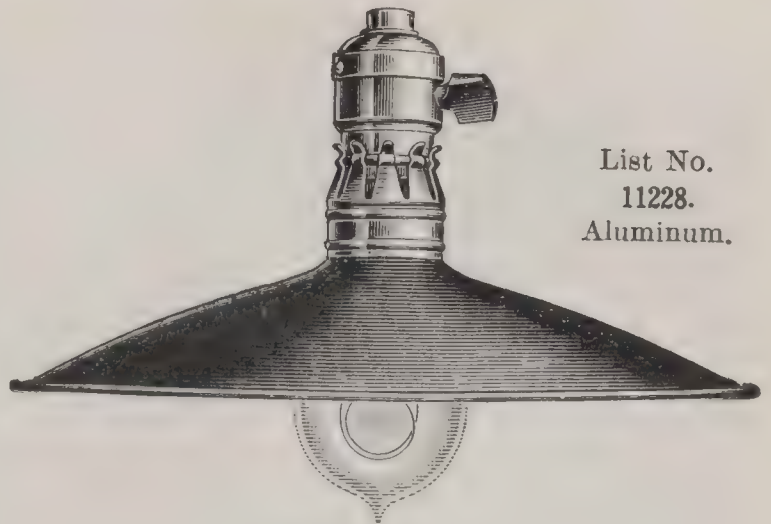
List No. 11202 is made especially for desk and picture lighting where a strong concentrated light shading the lamp is desired.

List No.		Price.
11201	Shades.....per dozen,	\$6 00
11202	"	8 40

ALUMINUM AND STEEL REFLECTOR AND PATENT HOLDER COMBINED.



List No.
5501.
Half Cone



List No.
11228.
Aluminum.

STEEL.

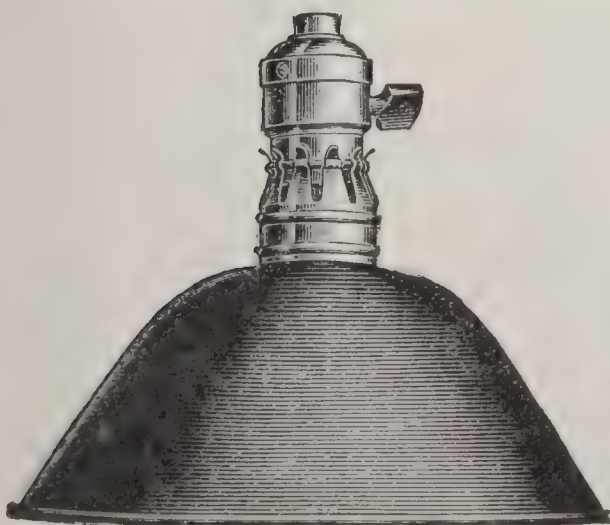
Shades are seamless and are made of aluminum. Aluminum shades are light, enameled green outside and either polished or frosted inside. Holders reach well over the shank of the lamp, leaving the shade to begin at top of filament of lamp. Strong, durable and a neat appearing shade.



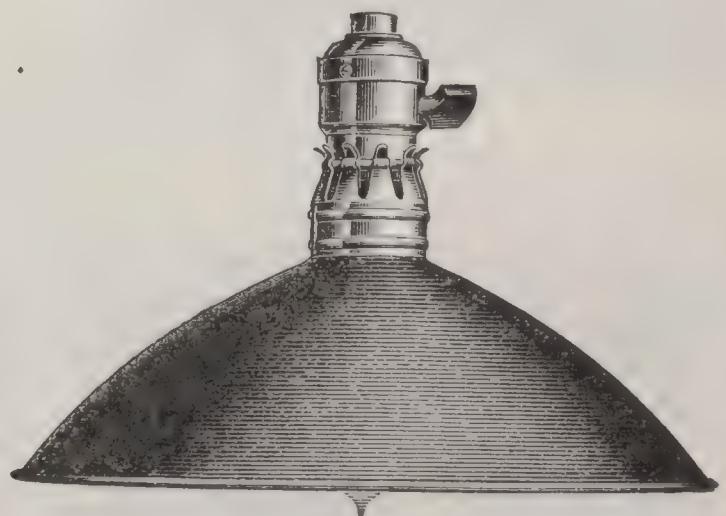
List No.
5504.
Deep Cone.

ALUMINUM.

List No.			Price.
5504	Deep cone, frosted, 7-inch.....	each,	\$0 45
5505	" " polished, 7 "	"	60
11225	" " frosted, 8 "	"	65
11226	" " polished, 8 "	"	80
5501	Half " frosted, 7 "	"	45
5502	" " polished, 7 "	"	60
11227	" " frosted, 10 "	"	80
11228	" " polished, 10 "	"	1 00



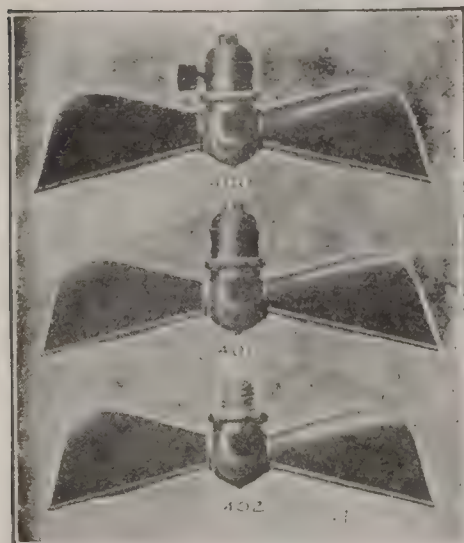
List No. 11229. Aluminum.



List No. 11232. Aluminum.

List No.		Price.
11229	8-inch, frosted.....	each, \$0 65
11230	8 " polished.....	" 80
11232	9½-inch, frosted.....	" 80
11233	9½ " polished	" 1 00

D'OLIER UNIVERSAL SOCKETS AND SHADES.



The D'Olier universal sockets and shades will suspend the lamps in any horizontal position, allowing them to be rotated around the axis of the cord or socket and the shades will rotate around the lamp, thus enabling a well diffused white light to be given in any desired direction.

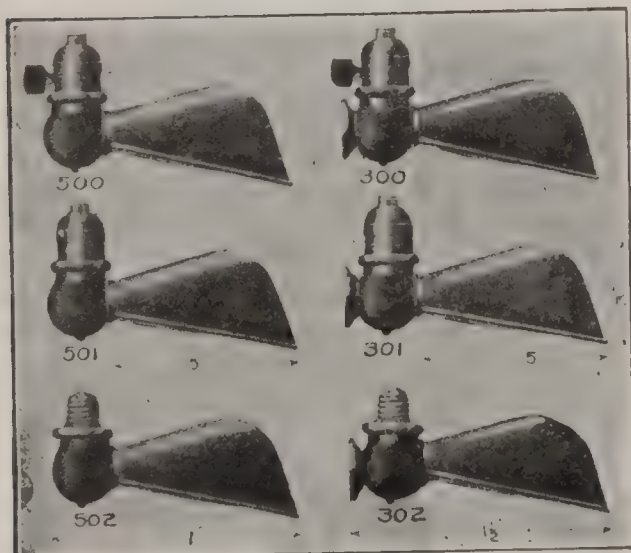
Two Eight-Candle power lamps with the double sockets give much better results than one 16 C.P. lamp with a single balanced socket.

An 8 C. P. lamp used in the single balanced socket and shade gives sufficient light for ordinary conditions. The inside surface is finished so as to radiate an even, mellow white light.

Double Shade.

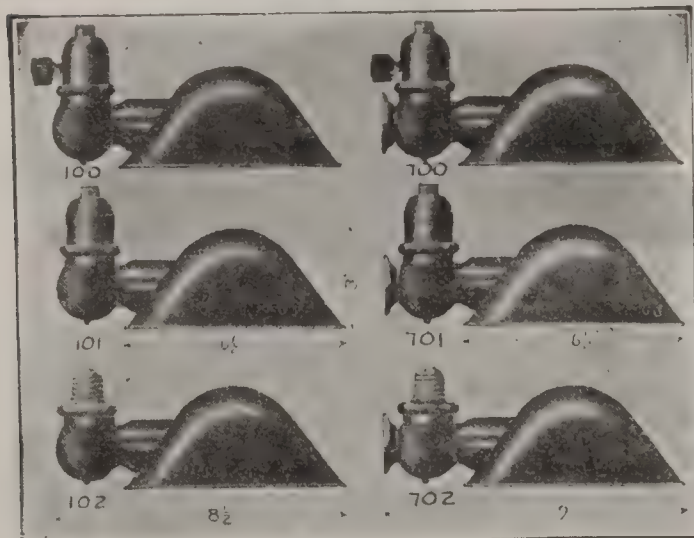
List No.	Mfrs. No.		Price.
14938	400	Double shade with key socket.....	\$1 50
14939	401	" " " keyless socket.....	1 40
14940	402	" " " attachment plug....	1 20

Single Shade.



List No.	Mfrs. No.		Price.
14941	500	Single shade key socket.....	\$1 30
14942	501	" " " keyless socket.....	1 20
14943	502	" " " attachment plug...	1 00
14944	300	" " " key socket.....	1 30
14945	301	" " " keyless socket....	1 20
14946	302	" " " attachment plug...	1 00

Parabolic Single Shade.

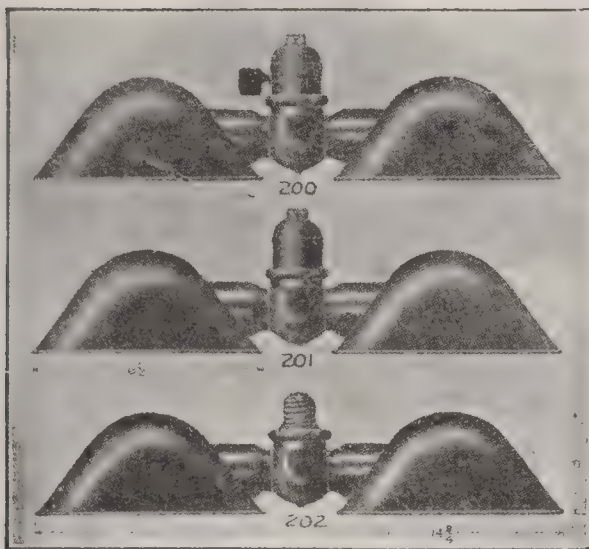


List No.	Mfrs. No.		Price.
14947	100	Single shade key socket.....	\$2 00
14948	101	" " " keyless socket....	1 90
14949	102	" " " attachment plug...	1 70
14950	700	" " " key socket.....	2 00
14951	701	" " " keyless socket....	1 90
14952	702	" " " attachment plug...	1 70

Standard finish.

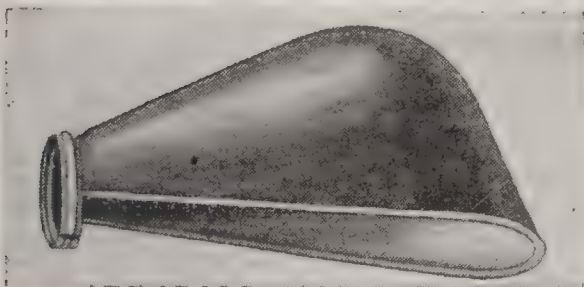
Black enamel body, black enamel shade.

D'OLIER UNIVERSAL SOCKETS AND SHADES.



Double Parabolic Shades.

List No.	Mfrs. No.		Price.
14955	200	Double Shade with key socket.....	\$2 30
14956	201	" " " keyless "	2 20
14957	202	" " " attachment plug.	2 00

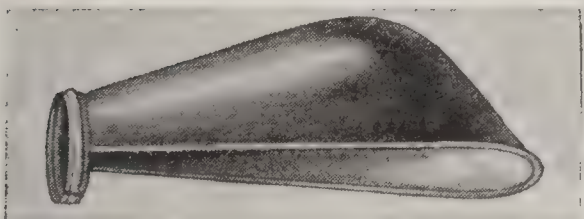


List No. 14958.

Metal Half Shade.

These half shades have shade holder attached.
The inside surface of the shade is finished so as to diffuse a soft white light over a large area.
The shade can be adapted to show-window, picture-lighting, portable desk-lamps, etc.

List No.		Price.
14958	Green Enamel.....per doz.	\$2 00
14959	Oxidized Copper.....	3 00
14960	Nickel Plated.....	3 00



List No. 14961

List No.		Price.
14961	Green Enamel....per doz.	2 00
14962	Oxidized Copper.....	3 00
14963	Nickel Plated.....	3 00

Metal Parabolic Shades.

This shade has shade holder attached.
6 inches in diameter and 2½ inches deep.

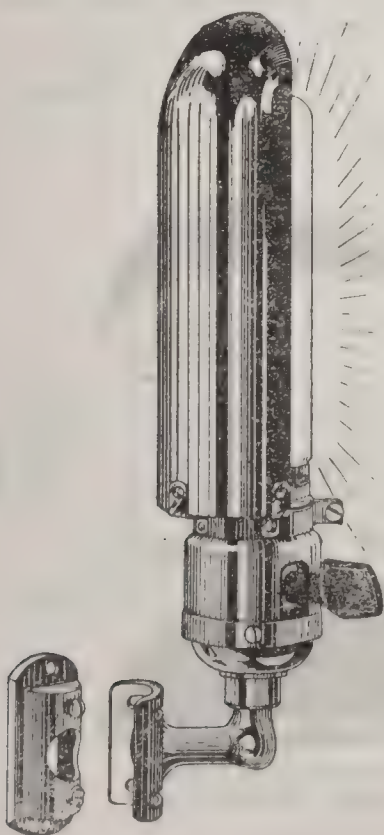
List No.	Steel.	Price.
14964	Green Enamel.....per doz.	3 00
14965	Black "	3 00
List No.	Aluminum.	
14966	Green Enamel.....per doz.	4 20
14967	Black "	4 20

Adjustable Show Case Fixture.

A perfect fixture for case or window illumination because of its adjustability. Can be used with any wood moulding.

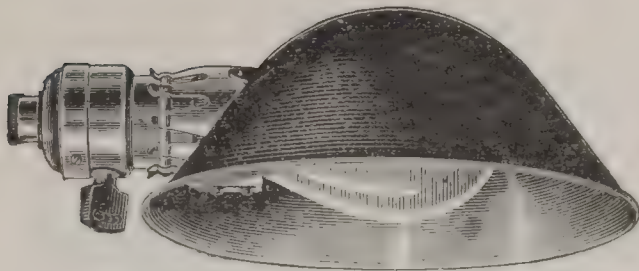
List No.		Price.
6357	Fixture Complete without socket.....	\$0 50
6358	" " " with socket.....	1 20

Nickel Plated or Brass Finish.



PARABOLA SHADES.

REQUIRE NO SHADE HOLDER.



List No. 5499.



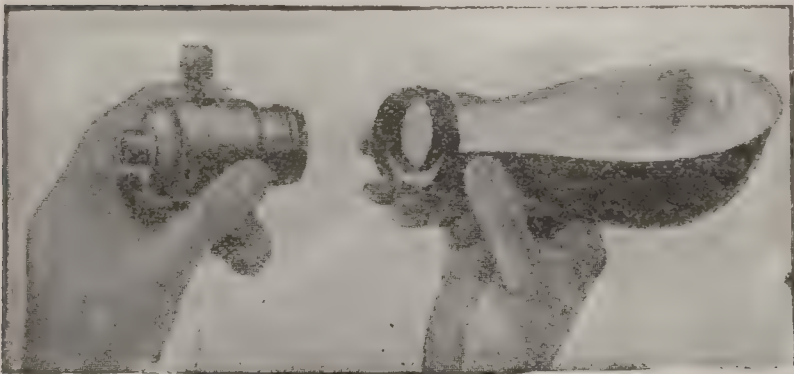
List No. 5495.

List No. 5499 Parabola Shade covers the lamp completely, so that it is really a shade as well as a reflector. The holder turns on the socket so that the light may be thrown to any angle.
List No. 5495 is a List No. 5499 Polished Aluminum Reflector Shade improved by dimpling. This dimpling breaks up the reflections and gives an even light free from streaks.

List No.	Aluminum.	Price.
5498	7 inch, polished plain, for 16 or 32 C. P. lamp.....	each, \$0 60
5499	7 " frosted " " 16 or 32 " "	" 45
11214	8 " polished " " 32 or larger C. P. lamp.....	" 80
11215	8 " frosted " " 32 " "	" 65
5495	7 " polished dimpled, for 16 or 32 C. P. lamp.....	" 60
5496	8 " " " 32 or larger C. P. lamp.....	" 80

BERGGREN HALF SHADES.

REQUIRE NO SHADE HOLDER.



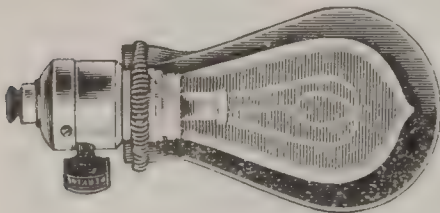
A band of spiral-shaped steel 1/4 inch wide is riveted and soldered to outer edge of shade, the spiral of which widens upon pressure of the hand, allowing band to slip over raised groove on socket. the release from pressure allows band to tighten around socket.

List No.	Price Per doz.
11216	Berggren tin half shade....\$ 3 00
11217	" aluminum half shade, 12 00

THE KNAPP HALF SHADE.

Enameled Steel. Green outside. White inside.

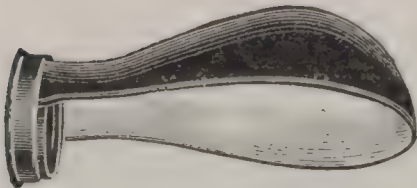
A spiral spring is attached to one side of the collar of shade. The only operation necessary to put the shade in position is to place it over the lamp and slip a coil of the spiral spring over the edge of the collar as shown in illustration.



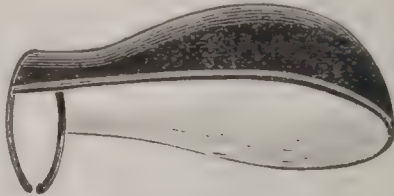
List No.	Price.
11218	Shade complete.....per doz., \$3 00

Aluminum and Tin Half Shades.

Green outside,
White inside.

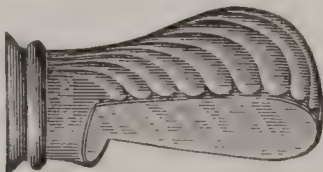


List No.	For 2 1/4 inch Shade Holder.	Price Per doz.
11219	Aluminum, Frosted inside.....	\$5 50
5481	Tin, White inside.....	3 00

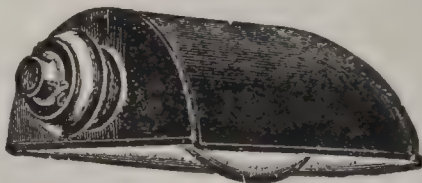


List No.	For 2 1/4 inch Shade Holder.	Price Per doz.
11223	Aluminum, Frosted inside.....	\$4 50
5482	Tin, White inside.....	2 50

Billiard Table Shade.

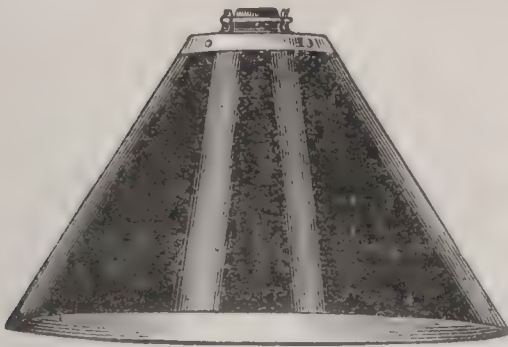


List No.	For 2 1/4 inch Shade Holder.	Price Per doz.
5583	Green Glass, Ribbed.....	\$10 00
11220	Opal Glass, Plain.....	9 00



List No.	For 2 1/4 inch Shade Holder.	Price Per doz.
11224	Billiard Table Shade.....	\$6 00

SHADES AND REFLECTORS.



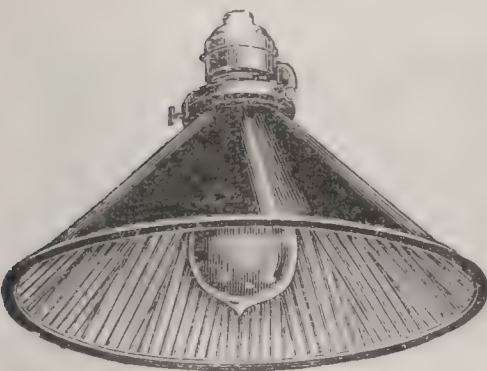
Cardboard and Celluloid.

List No.		Price per doz.
5494	8 in. Cardboard, green, white lined.....	\$2 00
5507	8 " Celluloid, " " "	7 20
5508	10 " Cardboard.....	2 50
5510	10 " Celluloid, green, white lined.....	10 00

Frink's Reflecting Shades.

Enameled Dark Green Outside, Lined with Silvered Corrugated Mirror or Opal Glass.

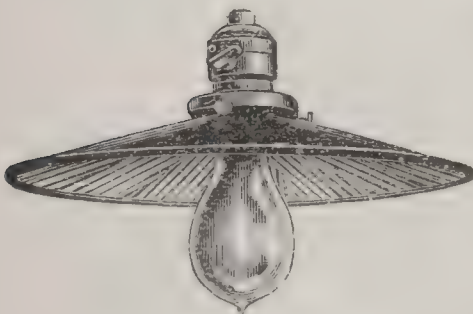
Deep Cone.



List No. 5519.

List No.	Diam. in Inches.	Glass	For Holder	Price Each,
5518	7	Mirror.....	2¼ in.....	\$0 90
5519	7	Corrugated	"	99
5520	8	Mirror.....	"	90
5521	8	Corrugated	"	99
5522	10	Mirror.....	"	1 00
5523	10	Corrugated	"	1 10
5524	12	Mirror.....	"	1 20
5525	12	Corrugated	"	1 32

Flat Reflector Shade.

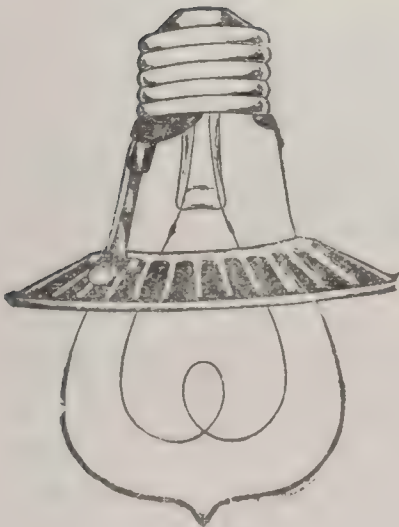


List No. 5527.

5526	10	Mirror.....	2¼ in.....	85
5527	10	Corrugated	"	95
5528	12	Mirror.....	"	1 00
5529	12	Corrugated	"	1 25
5530	14	Mirror.....	"	1 20
5531	14	Corrugated	"	1 35
5532	16	Mirror.....	"	1 50
5533	16	Corrugated	"	1 70
5534	18	Mirror.....	3¼ in.....	2 00
5535	18	Corrugated	"	2 25

14 and 16 inch made to take 3¼ inch holder.

16 and 18 inch are also made with ¾ inch hole at same price as above.



The Sarco Two Light Reflector.

Made of Aluminum.

This doubles the light of an 8 or 16 C.P. incandescent light. It is shadowless; especially designed for outside use for electric signs and etc.

Made in two sizes.

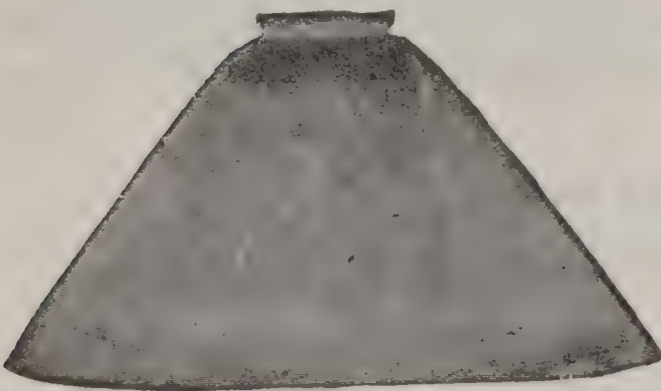
Finish is polished aluminum inside, satin finish outside.

List No.		Price.
14970	Sarco reflector 3¼ inches per dozen,,.....	\$2 50
14971	" " 4 " " "	3 00

INCANDESCENT LAMP SHADES.

Deep Opal Cone.

2 1/4 and 3 1/4 inch holder.



List No.	Price.
5545 7 inch, opal.....per doz.	\$3 00
5546 8 " "	3 30
5547 10 " "	3 50

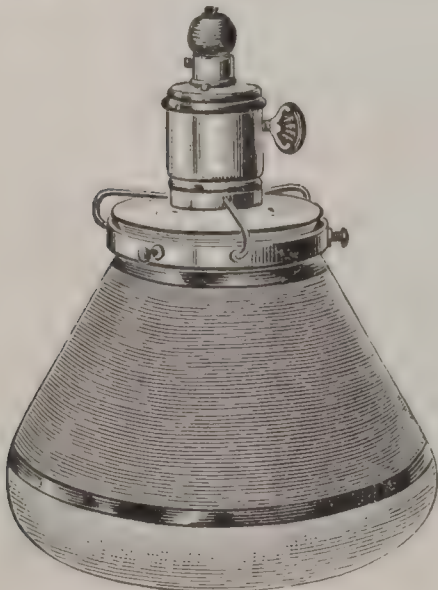
Green Outside.

5548 7 inch, 2 1/4 inch holder...per doz.	\$ 6 00
5544 10 " 2 1/4 " " .. " "	10 00
5549 10 " 3 1/4 " " .. " "	10 00

Deep Crimped Opal.



List No.	Price.
5550 5 inch, 2 1/4 inch holder....per doz.	\$1 80
5551 6 " 2 1/4 " " " " "	1 90
5552 7 " 2 1/4 " " " " "	2 00
5553 8 " 2 1/4 " " " " "	2 30
5554 10 " 2 1/4 " " " " "	3 00



List No.	Price.
5536 7 inch, silver, gold, white or green.....per doz.	\$13 00
5537 8 " " " " " "	15 00
5538 9 " " " " " "	22 00
5539 12 " silver.....	42 00
5540 15 " "	£0 00

Flat Opal.



List No.	Price.
5563 6 inch, 2 1/4 inch holder....per doz.	\$ 1 60
5564 7 " 2 1/4 " " " " "	1 70
5565 8 " 2 1/4 " " " " "	1 80
5566 10 " 2 1/4 " " " " "	2 40
5567 12 " 2 1/4 " " " " "	3 20
5568 14 " 3 1/4 " " " " "	5 30
5569 16 " 3 1/4 " " " " "	9 50
5570 18 " 3 1/4 " " " " "	12 80
5571 20 " 3 1/4 " " " " "	15 00
5572 24 " 3 1/4 " " " " "	24 00

Fluted Opal.



List No.	Price.
5573 6 inch, 2 1/4 inch holder....per doz.	\$1 70
5574 7 " 2 1/4 " " " " "	1 80
5575 8 " 2 1/4 " " " " "	2 00
5576 10 " 2 1/4 " " " " "	2 70
5577 12 " 2 1/4 " " " " "	3 50

Scalloped Opal.

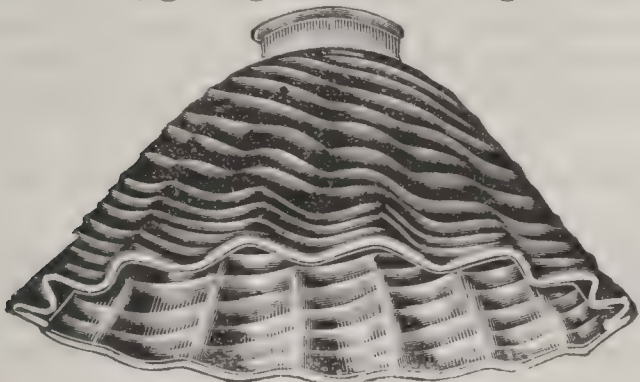


List No.	Price.
5578 5 inch, 2 1/4 inch holder....per doz.	\$1 80
5579 6 " 2 1/4 " " " " "	1 90
5580 7 " 2 1/4 " " " " "	2 00
5581 8 " 2 1/4 " " " " "	2 30
5582 10 " 2 1/4 " " " " "	3 00

Glass Reflector Shade.

“X-RAY” SILVERED GLASS REFLECTOR.

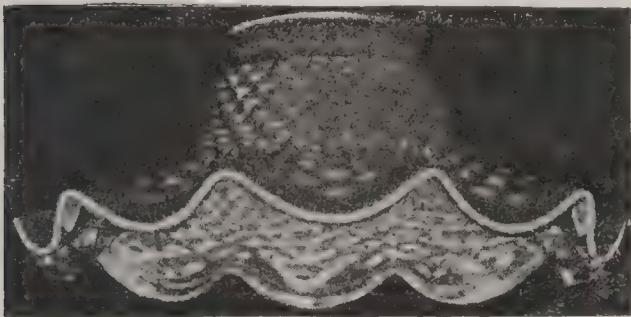
An increase of about 100 per cent. in light at less cost can be realized through the use of our reflectors for store, window, desk, chandelier, fancy fixture, ceiling, wall, show case, church, general and ornamental lighting By proper placement of our different styles and sizes, any field of lighting can be advantageously covered, giving increase of light at decrease of cost.



List No. 11240.

The most powerful reflector known for show windows, office desks, jewelers, draftsmen, library, billiard tables, or any purpose requiring a strong concentrated light.

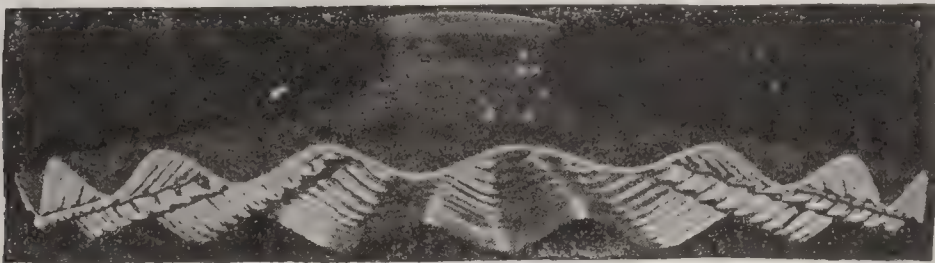
List No.	Price.
11240	8-in. diam., 5-in. deep, 2¼-in. holder, per doz. \$10.50
11241	10-in. diam, 5½ in. deep, 2¼-in. holder, per doz. 12 00



List No. 11242.

For ornamental purposes, such as side lights for show windows, fancy fixtures, chandeliers, private dwellings in drawing rooms, dining rooms, churches, etc., this shade is unsurpassed.

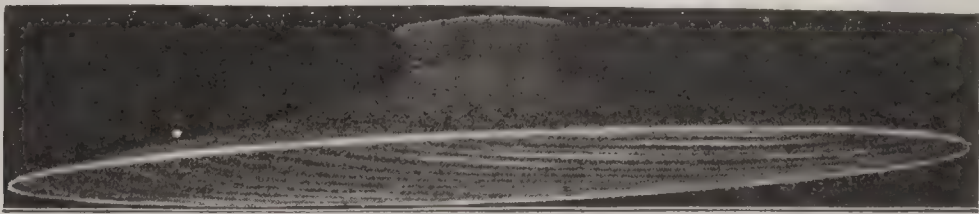
List No.	Price.
11242	6¼-in diam., 2¼-in. deep, 2¼-in. holder. .per doz., \$9.00



List No. 11243.

For spreading light where single incandescent lamps are used, these reflectors give the greatest satisfaction. Being artistic in design, with an undulating and corrugated surface, this reflector will be found very useful in general lighting.

List No.	Price.
11243	8-in. diameter, 2¼-in. holder.....per doz., \$10.50
11244	10 “ “ 2¼ “ “ ‘ 12.00



List No. 11245.

For spreading light and used for a cluster of three to six incandescent lamps. Where a large amount of light is used, this reflector has no equal.

List No.	Price.
11245	14-in. diameter, 3¼-in. holder.....per doz., \$18.00
11246	16 “ “ 3¼ “ “ “ 21.00
11247	18 “ “ 3¼ “ “ “ 24.00

HOLOPHANE SCIENTIFIC GLASS GLOBES.

Holophane Globes are made of a perfectly colorless, transparent glass which is pressed and thoroughly annealed to produce toughness. The globes are provided with vertical prismatic ribs on the inside and horizontal prismatic ribs on the exterior. Each rib has a number of separate faces, some of which refract or bend the rays, and others by reflection change the direction of the rays of light from their natural direction to the direction desired, softening and diffusing the light, and increasing the illumination in the desired direction. Holophane Glass Globes are made in THREE GENERAL CLASSES.

CLASS A.—Are for use where the light is directly above the object requiring the strongest illumination, and therefore throws the light downward.

CLASS B.—Are for use where strong illumination is required in all directions below the horizontal. They give a maximum of light at an angle of 40° below the horizontal.

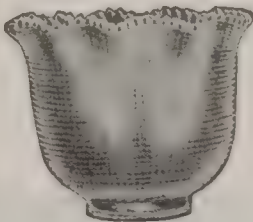
CLASS C.—Are for general illumination of large areas, where the lights are placed far apart. They give a maximum of light at an angle of 10° below the horizontal.

Holophane Globes MUST NOT be used in any other position than specified and shown in the illustrations, which are set in the correct positions. Pendants can, however, be used at 45°.

For 2½ inch Holders.



No. 1385. Class A.



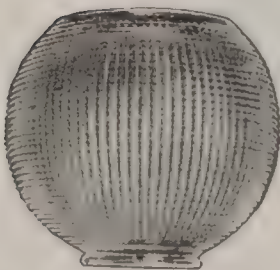
No. 2005. Class B.



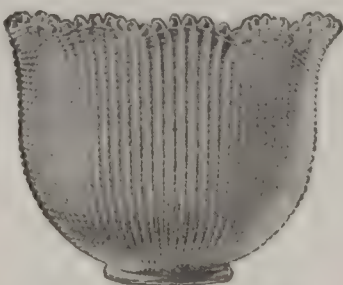
No. 2105. Class C.



No. 2905. Class C.



No. 2451. Class B.



No. 2405. Class B.



No. 2805. Class B.



No. 2450. Class B.



No. 2250. Class B.

No. 2205. Upright.



No. 2705. Class B.

* For 1⅝ Inch Holder Only.

List No.	Mfrs. No.	Height.	Width.	Doz. in Pkge.	Price Doz.
11257	1385	4¼ in.	6 in.	7	\$11 00
11253	2005	4 "	5 "	6½	10 00
11256	2105	5 "	3¾ "	6	9 00
11252	2905	5 "	5 "	5	12 00
11250	2451	4½ "	5¼ "	5	11 00

List No.	Mfrs. No.	Height.	Width.	Doz. in Pkge.	Price Doz.
11251	2405	4½ in.	5¾ in.	4½	\$11 00
11258	2805	4½ "	5½ "	5	11 00
14975	2450	4 "	5½ "	6	11 00
14976	2250	4¾ "	4½ "	8	9 00
* 14977	2705	4¾ "	4½ "	9	8 50

* Includes Special Holder.

HOLOPHANE SCIENTIFIC GLASS GLOBES.



No. 701.

Hemispheres or Bowls.

All Class A.

List No.	Mfrs. No.	Diam. Under Flange.	Diam. Over All.	List Price Each.
14982	701	6 $\frac{3}{4}$ inch.	7 $\frac{3}{8}$ inch.	\$1 50
14983	811	7 $\frac{1}{2}$	8	1 85
14984	911	8 $\frac{1}{2}$	9	2 00
14985	1011	9 $\frac{1}{2}$	10	3 00
14986	1211	11 $\frac{1}{2}$	12	5 00
14987	1411	13 $\frac{1}{2}$	14	10 00
14988	1611	15 $\frac{1}{2}$	16	15 00

Write for prices on cut glass hemispheres and bowls.

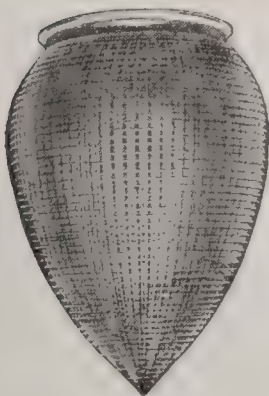


No. 3050, Class B.

Spheres or Balls—Pendant.

List No.	Mfrs. No.	Size Holder.	Diameter.	Doz. in Pkge.	Price Dozen.
11279	3050	3 $\frac{1}{4}$ in.	5 $\frac{1}{2}$ in.	3	\$17 00
14980	3063	3 $\frac{1}{4}$	6	2 $\frac{1}{2}$	22 00
14981	3064	4	6	2 $\frac{1}{2}$	22 00
11280	3155	3 $\frac{1}{4}$	6 $\frac{1}{2}$	2	24 00
11281	3154	4	6 $\frac{1}{2}$	2	24 00
11282	3550	4	8	1	48 00
11283	3555	5	8	1	48 00
11284	3556	6	8	1	48 00

Write for prices on cut glass spheres.



No. 3343.

Write for prices on cut glass stalactites.

Spheres or Balls Upright.

11285	3405	3 $\frac{1}{4}$	5 $\frac{1}{2}$	3	17 00
14998	3105	3 $\frac{1}{4}$	6	2	24 00
14999	3145	4	6	2	24 00
11288	3500	4	8	1	48 00
11289	3505	5	8	1	48 00
11290	3506	6	8	1	48 00

Pendant Stalactites—Class B.

List No.	Mfrs. No.	Class.	Size Holder.	Height.	Width.	Doz. in Pkge.	Price Doz.
14990	*3343	B	3 $\frac{1}{4}$ in.	4 $\frac{1}{2}$ in.	3 $\frac{1}{2}$ in.	9	\$8 00
14991	3158	B	3 $\frac{1}{4}$	5 $\frac{1}{4}$	3 $\frac{1}{2}$	7	9 00
14992	3150	B	3 $\frac{1}{4}$	6	4	5	12 00
14993	3149	B	4	6	4	5	12 00
14994	3250	B	4	8	5 $\frac{5}{8}$	2 $\frac{1}{4}$	24 00
14995	5000	C	4	10	7 $\frac{1}{4}$	1	48 00
14996	5005	C	5	10	7 $\frac{1}{4}$	1	48 00
14997	5006	C	6	10	7 $\frac{1}{4}$	1	48 00



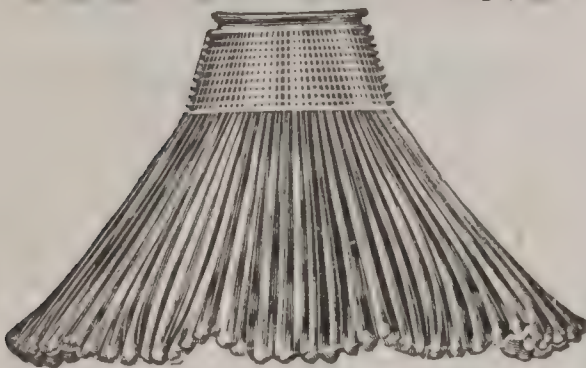
No. 3383.

Pendant Stalactites—Class A.

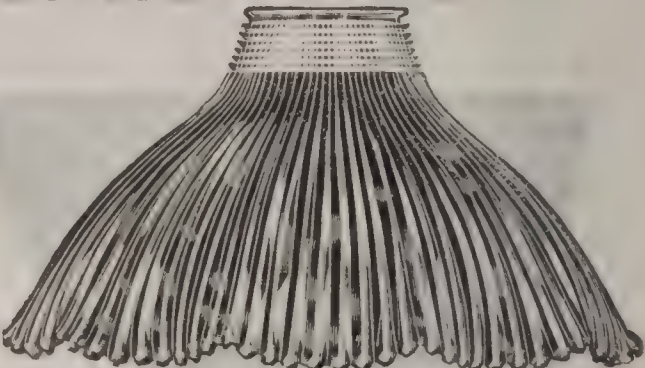
15000	*3383	A	3 $\frac{1}{4}$	4 $\frac{1}{2}$	4 $\frac{1}{4}$	7	10 00
11276	3358	B	3 $\frac{1}{4}$	5	4 $\frac{3}{4}$	5	12 00
14972	3353	A	3 $\frac{1}{4}$	5	4 $\frac{5}{8}$	5 $\frac{1}{2}$	12 00
14973	3363	A	3 $\frac{1}{4}$	5	5	5	14 00
11277	3350	A	3 $\frac{1}{4}$	6	6	2 $\frac{3}{4}$	20 00
11278	3354	A	4	6	6	2 $\frac{3}{4}$	20 00

*For not larger than 10 c.p. lamp.

HOLOPHANE SCIENTIFIC PAGODA REFLECTORS.



No. 2631 (Plain Edge 2630.)
1 5/8 inch neck.



No. 2621. (Plain Edge 2620.)
1 5/8 inch neck.



No. 2633 (Plain Edge 2632.)
2 1/4 inch neck.



No. 2545.
1 5/8 inch neck.



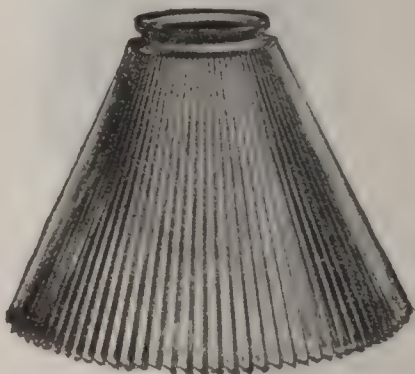
No. 2523 (Plain Edge 2622.)
2 1/4 inch neck.



No. 2683 (Plain Edge 2682.)
2 1/4 inch neck.



No. 2663 (Plain Edge 2662)
2 1/4 inch neck.



No. 2510.
2 1/4 inch neck.

List No.	Mfrs. No.	Size Holder.	Height.	Width.	Dozen in Pkge.	Price Doz.
15001	2510	2 1/4 in.	5 in.	7 in.	4	\$13 00
15002	2545	1 5/8 "	2 "	4 1/4 "	6	5 50
15003	* 2621	1 5/8 "	3 1/4 "	6 "	8	8 50 *
15004	2623	2 1/4 "	3 1/2 "	6 1/2 "	8	10 00
15005	* 2631	1 5/8 "	3 1/2 "	5 1/2 "	10	8 50 *
15006	2633	2 1/4 "	3 3/4 "	6 "	8	10 00
15007	2663	" "	2 3/4 "	6 "	7	9 00
† 15008	2673	" "	4 1/4 "	7 1/2 "	4	12 00
† 15009	2651	" "	5 "	9 1/2 "	3	18 00
15010	2683	" "	3 1/2 "	5 1/4 "	8	9 00

Plain Edge same price as Crimped Edge Reflector.
* Price includes special 1 5/8 inch holder.
† Same shape as 2623.

HOLOPHANE SCIENTIFIC PAGODA
REFLECTORS.



No. 2580. 2¼ inch neck.



No 2300.
2¼ inch neck.



No. 2577.
(Plain Edge 2576).
1 5⁄8 inch neck.



No 2301
2¼ inch neck



No. 2302.
2¼ inch neck.



No. 2657.
(Plain Edge 2656).
1 5⁄8 inch neck.

List No.	Mfrs. No.	Size Holder.	Height.	Width.	Dozen in Pkge.	Price Dozen.
15011	2300	2¼ inch	3 inch	7 inch	6	\$8 00
15012	2301	2¼	3	7	6	8 00
15013	2302	2¼	2¾	7	6	8 00
† 15014	2570	2¼	3¼	9½	3	18 00
* 15015	*2576	1⅝	3	4¼	15	7 00
* 15016	*2577	1⅝	3	4¼	15	7 00
15017	2580	2¼	3⅝	11½	2	27 00
* 15018	*2656	1⅝	3¾	5	10	8 00
* 15019	*2657	1⅝	4	4¾	10	8 00

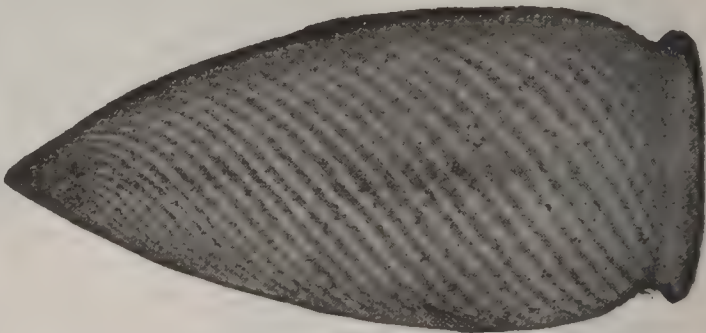
*Price includes special 1⅝ inch holder.

†Same shape as No. 2580.

BALLS, STALACTITES AND DISHES.

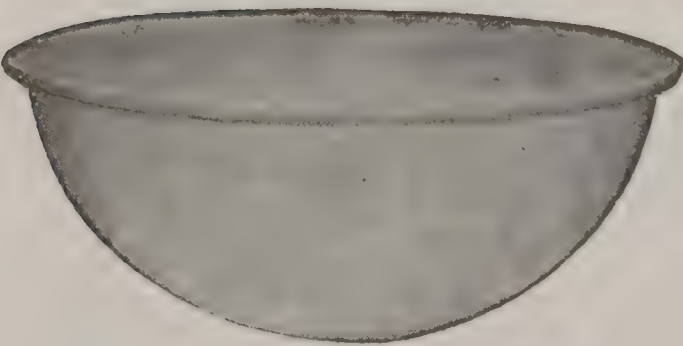


List No. 11293.

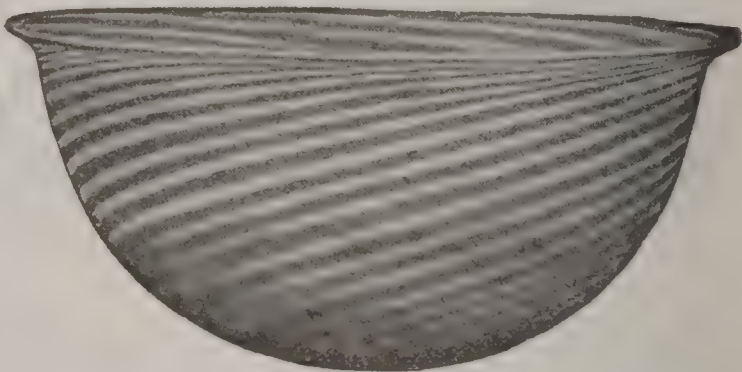


List No. 11296.

PRICE PER DOZEN.										
List No.	Mfrs. No.	Balls:	Diameter, 6 in.	7 in.	8 in.	9 in.	10 in.	12 in.	14 in.	16 in.
11292	B 10	Flint opalescent, plain or twist,	\$6.88	8.13	10.00	13.75	18.75	25.00	45.00	60.00
11293	B 10	Straw " " "	8.75	10.63	12.50	16.25	22.50	35.00	55 00	105.00
Stalactites										
		(3¼ inch holders.)	Length, 6 in. or 6½ in.	7 in. or 7½ in.		8 in.	9 in.	10 in.		
11294	S 10	Flint Opalescent.....	\$5.63	6.88		8.75	10.00	11 88		
11295	S 10	Straw "	7.50	9.38		11.25	12.50	15.00		
11296	S 10	Pink or Ruby	12.50	13.75		15.00	18 75	22.50		



Cystal Roughed Inside D



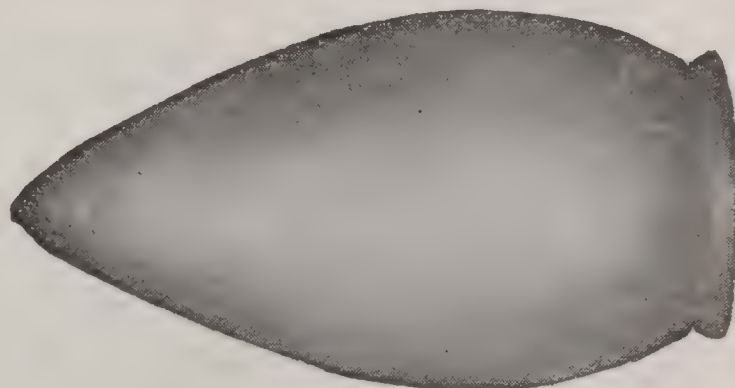
Opalescent Dish.

PRICE PER DOZEN												
List No.	Dishes:	Diam., 6 in.	7 in.	8 in.	9 in.	10 in.	12 in.	14 in.	15 in.	16 in.	18 in.	20 in.
11298	Crystal, Roughed Inside..	\$15.00	17.50	20.63	25.00	27.50	32.50	45.00	60.00	75.00	97.50	150 00
11299	Opalescent, Twist or Plain,	13 75	16.25	18.75	22.50	25.00	30.00	41.25	52.50	67.50	90.00	127.50
11300	Straw Opales., " " "	17.50	20.00	23.75	27 5	30.00	37.50	52.50	75.00	90 00	112.50	165.00

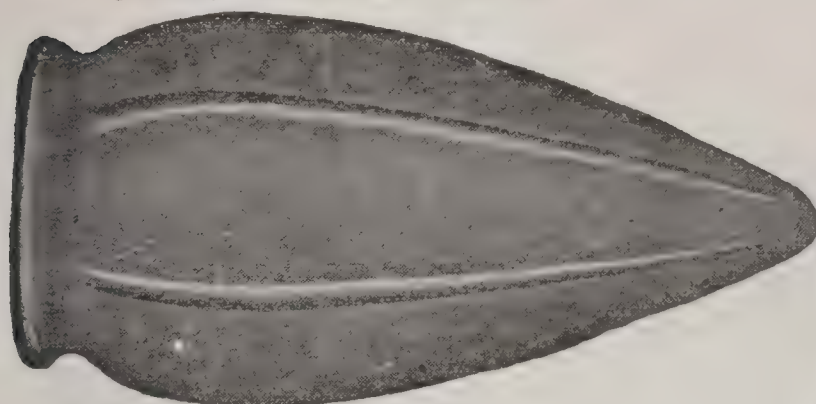
ELECTRIC BALLS AND STALACTITES.



List No. 11301.
Crystal, Roughed inside.



List No. 11304.
Crystal, Roughed Inside.



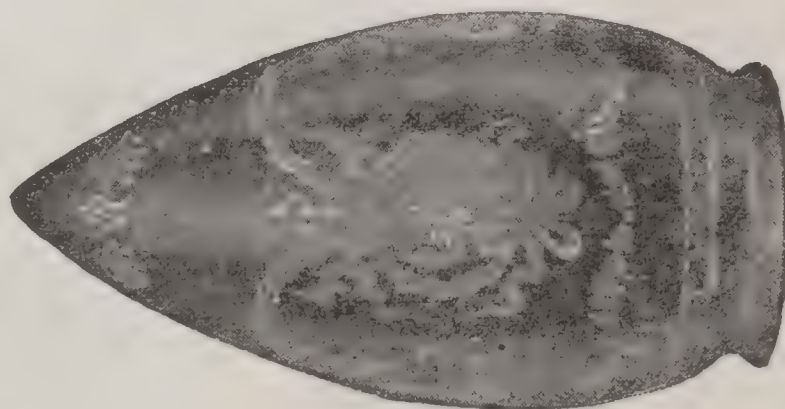
List No. 11305.
Crystal, Roughed Inside.



List No. 11302.
Crystal, Roughed Inside.



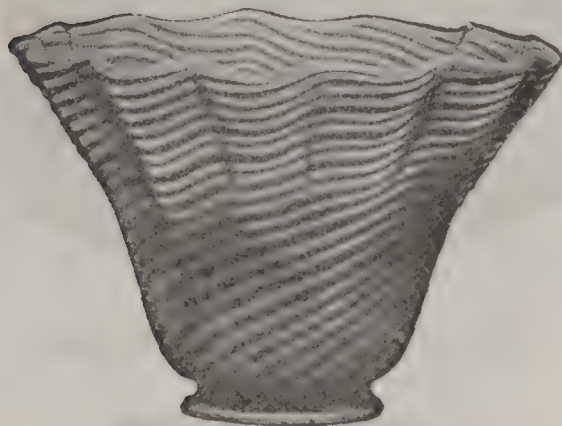
List No. 11303.
Etched.



List No. 11306.
Etched.

List No. Mfrs. No.		Balls.							
		Diameter....	6 in.	7 in.	8 in.	9 in.	10 in.	12 in.	14 in.
11301	B 57	Per Dozen..	\$7.50	10.00	12.00	15.00	22.50	30.00	60.00
11302	B 77	"	7.50	.....	.....	.....	.....	.....	.....
11303	B 58	"	10.00	12.50	15.00	.....	27.50	40.00	55.00
List No. Mfrs. No.		Stalactites.							
		Length.....	6 in.	6½ in.	7 in.	7½ in.	8 in.	9 in.	10 in.
11304	S 57	Per Dozen..	\$6.88	6.88	8.13	8.13	10.00	11.25	13.75
11305	S 77	"	.....	.....	.....	.....	10.00	.....	.....
11306	S 58	"	.....	.....	.....	8.13	10.00	11.25	13.75

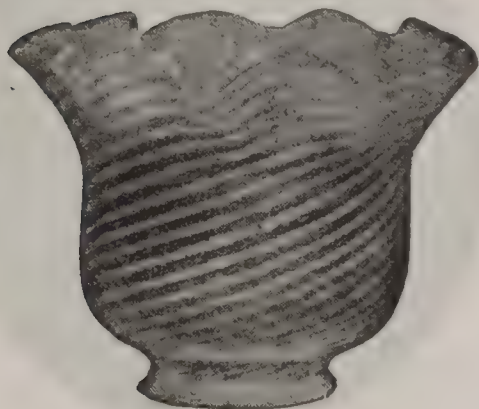
OPALESCENT AND COLORED ELECTRIC
SHADES.



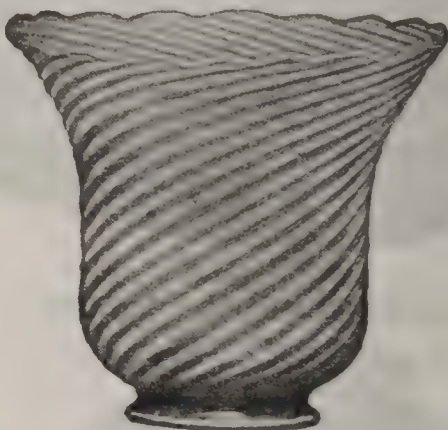
List No. 11310.
Twist Opalescent.



List No. 11311.
Twist Opalescent.



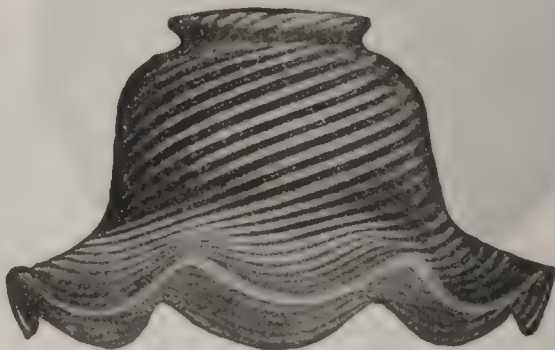
List No. 11312.
Twist Opalescent.



List No. 11319.
Twist Straw Opalescent.



List No. 11320.
Twist Straw Opalescent.



List No. 11315.
Twist Opalescent.

FLINT OPALESCENT.

List No.	Mfrs. No.	Twist or Plain.	
11310	E 1, per doz.		\$3 75
11311	E 2 "		3 75
11312	E 3 "		3 75
11313	E 5 "		3 75
11314	E 6 "		3 75
11315	107 A "		3 75

STRAW OPALESCENT.

List No.	Twist or Plain.	List No.	Pink or Ruby.
11316	\$5 00	11323	\$7 50
11317	5 00	11324	7 50
11318	5 00	11325	7 50
11319	5 00	11326	7 50
11320	5 00	11327	7 50
11322	5 00	11328	7 50

ELECTRIC LAMP SHADES.



List No. 11330.



List No. 11335.



List No. 11336.



List No. 11331.



List No. 11333.



List No. 11337.



List No. 11332.



List No. 11334.



List No. 11333.

List No.	Mfrs. No.		Price.
11330	993	Etched Glass	per doz., \$5 00
11331	802	" "	" 5 00
11332	604	" "	" 6 25
11333	953	" "	" 5 00
11334	988	" "	" 5 00
11335	448	White Acid Etched	" 3 38
11336	154	" " "	" 2 75
11337	437	" " "	" 2 75
11338	213	" " "	" 3 38

ELECTRIC LAMP SHADES.



List No. 11340.



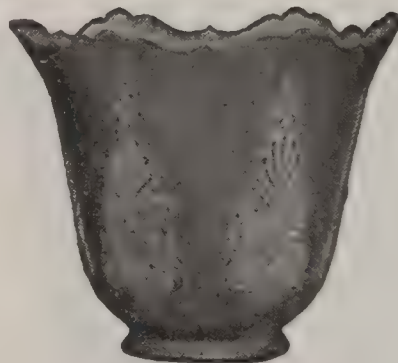
List No. 11341.



List No. 11343.



List No. 11348.



List No. 11344.



List No. 11342.



List No. 11346.



List No. 11347.



List No. 11345.

List No.	Mfrs. No.		Price.
11340	998	Etched and Polished.....	per doz., \$6 25
11341	950	“ “	“ 6 25
11342	P. 5½	Crystal, Roughed Top.....	“ 2 63
11343	60	“ “ Inside.....	“ 3 38
11344	63	“ “ “	“ 3 38
11345	77	“ “ “	“ 6 25
11346	66	“ “ “	“ 3 38
11347	P. 33	“ Glass.....	“ 2 13
11348	P. 27	“ “	“ 2 13

ELECTRIC LAMP SHADES.



List No. 11350.



List No. 11351.



List No. 11352.



List No. 11353.



List No. 11354.



List No. 11355.



List No. 11356.



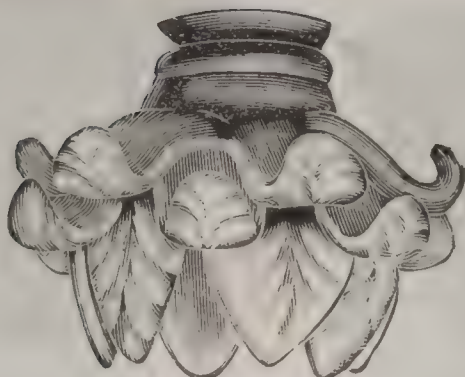
List No. 11357.



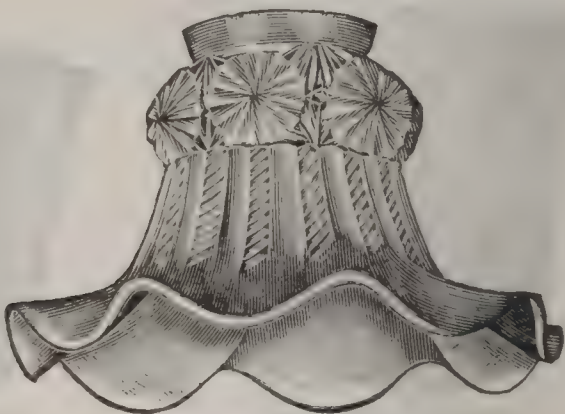
List No. 11358.

List No.	Mfrs. No.			Price.
11350	058	Etched Glass.....	per doz.,	\$5 00
11351	615	“ “	“	5 00
11352	602	“ “	“	6 25
11353	796	“ “	“	5 00
11354	776	“ “	“	5 00
11355	704	“ “	“	5 00
11356	801	“ “	“	5 00
11357	752	“ “	“	7 50
11358	753	“ “	“	7 50

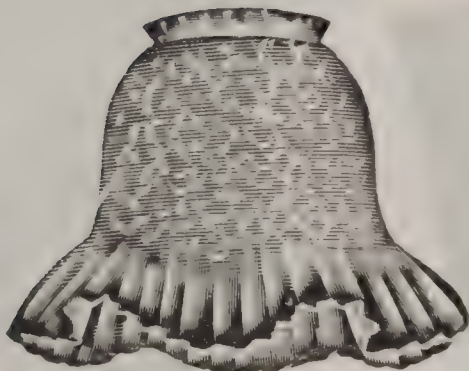
ELECTRIC LAMP SHADES.



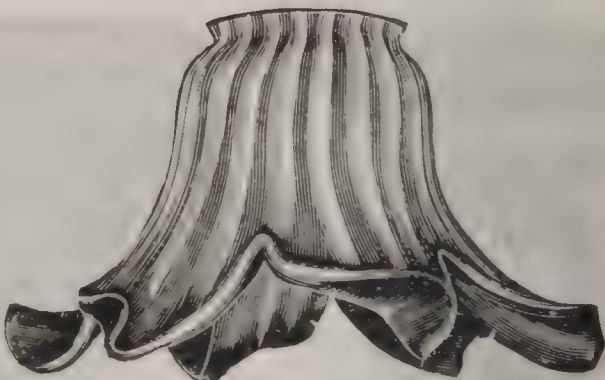
List No. 15022-23.



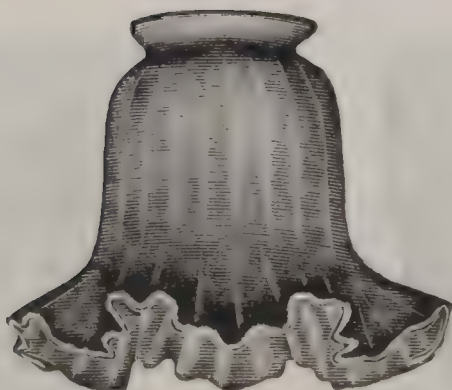
L st No. 15028.



List No. 15026.



List No. 15029.



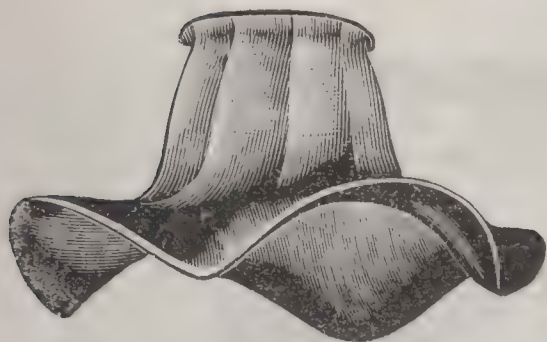
List No. 15027



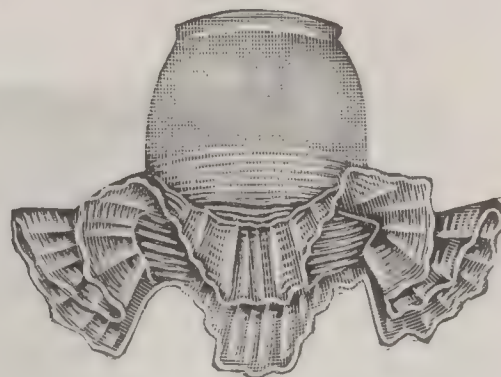
List No. 15030-31.

List No.		Price
15022	Rose Shade, Yellow Neck, Alabaster Leaves.....	Per Doz. \$10 65
15023	Rose Shade, Ruby Neck, " "	" " 10 65
15024	Rose Shade, Pink Neck, " "	" " 10 65
15025	Rose Shade, Blue Neck, " "	" " 10 65
15026	Crystal Ice Craquele Shade.....	" " 6 00
15027	Shade, Light Green Optic, Matt Pink Lips.....	" " 6 65
15028	" Opalescent.....	" " 4 80
15029	" " Crystal Striped.....	" " 9 34
15030	" Ruby	" " 6 40
15031	" Light Blue.....	" " 6 40

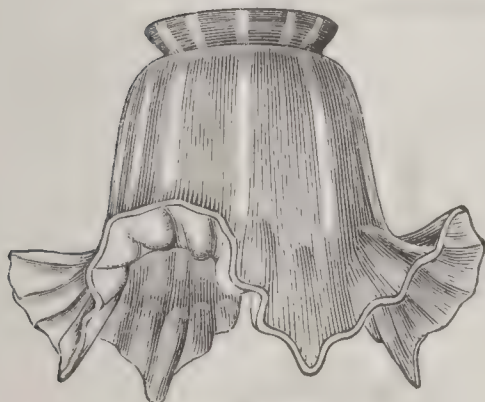
ELECTRIC LAMP SHADES.



List No 15032.



List No. 15034.



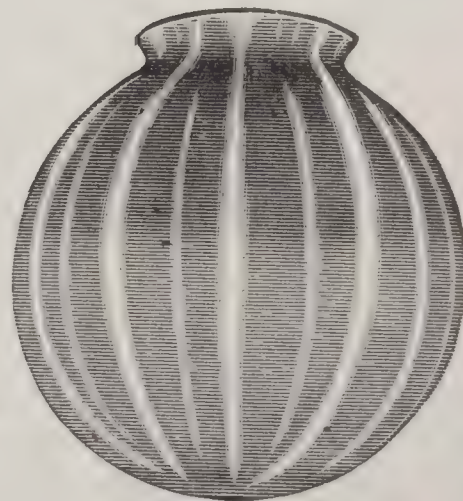
List No. 15033.



List No. 15035.



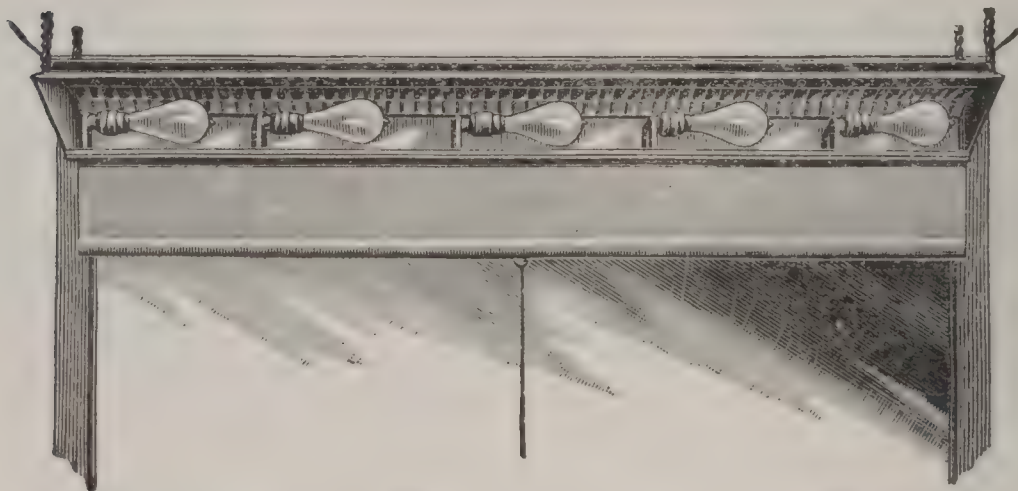
List No. 15036.



List No. 15037.

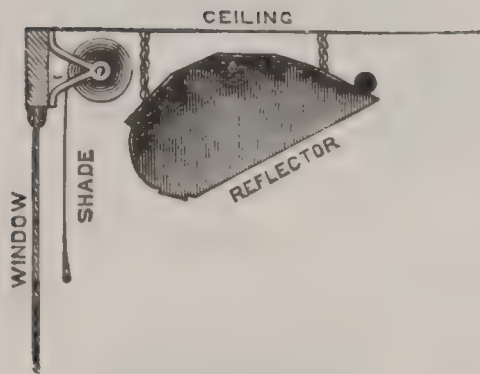
List No.		Price.
15032	Shade, Light Green Bottom, Rosy Lips.....	Per Doz. \$6 40
15033	“ Opalescent Crystal Striped.....	“ “ 6 40
15034	“ Crystal Matt.....	“ “ 8 65
15035	“ All Matt Alabaster....	“ “ 10 65
15036	Ball Globe Crystal Ice Craquele 7 in. x 3¼ in.....	“ “ 13 30
15037	“ “ Opalescent Crystal Striped, 6 in. x 3¼ in.....	“ “ 14 00
15038	Stalactite to Match Above.....	“ “ 14 00

FRINK'S SPECIAL PATENT WINDOW REFLECTOR.



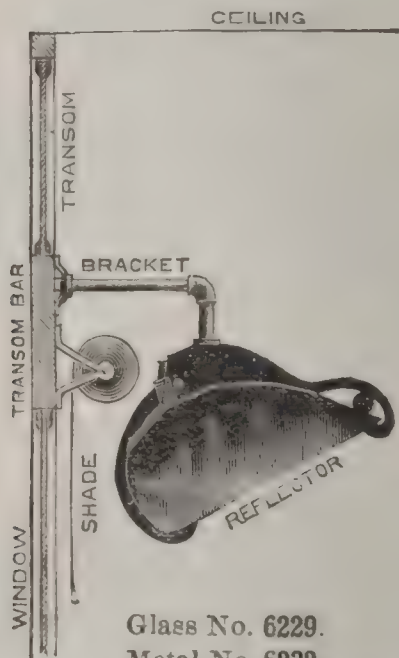
Glass List No. 6225.

Metal List No. 6228.



Glass No. 6225.
Metal No. 6228.

With loops to attach to ceiling with chain.



Glass No. 6229.
Metal No. 6232.

With adjustable brackets to attach to the transom bar.

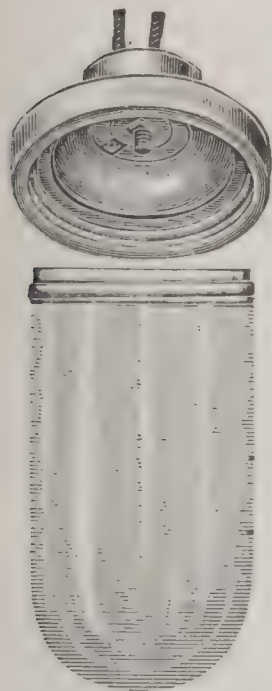
NOT WIRED.

List No.		Price Per Foot.
6225	Lined with Silver-Plated Corrugated Glass.....	\$2 20
6226	“ “ Mirror Plate Glass.....	2 00
6228	Bright Corrugated Metal.....	1 50
6229	Lined with Silver-Plated Corrugated Glass.....	2 50
6230	“ “ Mirror Plate Glass.....	2 30
6232	Bright Corrugated Metal.....	1 50

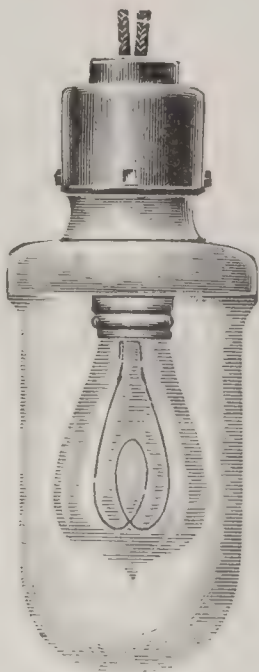
Wiring, fifteen cents per foot net, additional.
Sockets attached, twenty cents each, net, additional.
Quarter Circle, for round corner windows, \$3.00 each, net, additional.
Corner Mitres, \$1.50 each, net, additional.

To get the best results, reflectors should be used the entire width of windows, with lamps 9 or 12 inches apart, as desired.

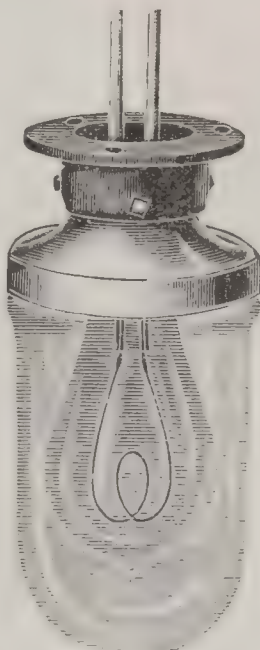
RECEPTACLES, GLOBES AND WIRE GUARD.



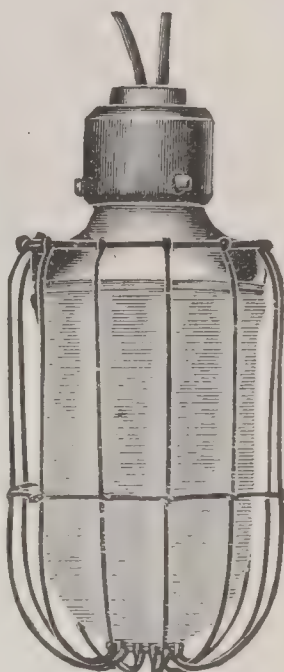
List No. 5460.



List No. 5463.



List No. 5467.



List No. 5458.

The Combined Waterproof Receptacle and Globe is exactly what its name implies, being a receptacle to take a 16 c. p. lamp with either Edison or T. H. base. For breweries, packing houses, cold storage warehouses, paper mills, soap factories, starch mills, distilleries, cardboard factories and many other places where the conditions are unusually severe for electrical wiring; and wherever there is moisture of any kind the Newgard Receptacle and Globe solves the difficulty heretofore experienced where the severe conditions made the perfect installation of lamps and sockets an impossibility.

Style A.			Style B.			Style C.		
List No.		Price Per doz.	List No.		Price Per doz.	List No.		Price Per doz.
5460	Complete.....	\$15 00	5463	Complete.....	\$18 00	5467	Complete.....	\$18 00
5461	Globes only.....	6 00	5464	Globes only.....	6 00	5468	Globes only.....	6 00
5462	Porcelain Caps....	10 00	5465	Porcelain Caps....	10 00	5469	Porcelain Caps....	10 00
			5466	Metal Attach.....	5 00	5470	Metal Attach.....	5 00

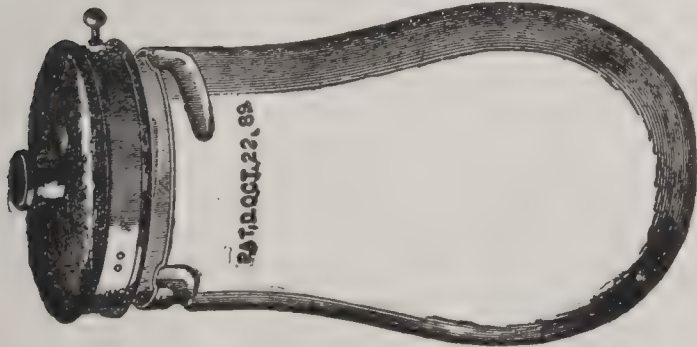
Style "A" is regularly furnished with 8 inch conducting wires, and is designed for pendant work. Style "B" is as Style "A" Receptacle, fitted with iron pipe connection for use with 1/2 inch iron conduit pipe. Style "C" is the same as Style "A" with the exception that it is provided with a flange of japanned iron to screw to ceiling or wall. (Packed one dozen in wooden case.)

Special Wire Guards.

The Newgard Receptacle and Globe is made of material very strong and solid, yet where liable to very hard knocks a protection has been devised in the shape of a special wire guard, which fits the globe and receptacle securely and fully protects it against the hardest blow. This guard is made of large steel wire and its shape holds the globe directly in the center and is extremely easy to adjust.

List No.		Price.
5458	Newgard Wire Guards.....per doz.,	\$4 00

GLEASON VAPORPROOF GLOBE.

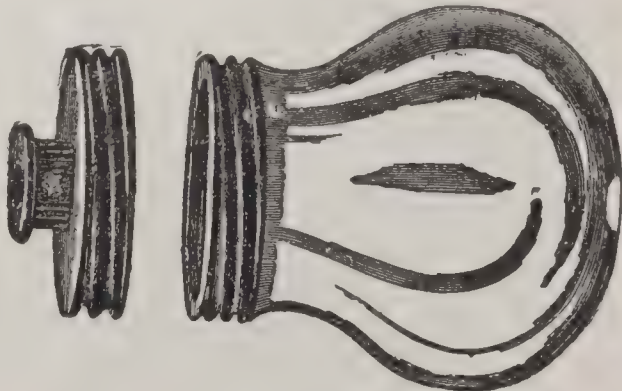


List No. 5471.

For 16 Candle Power Lamp.

List No.	Price.
5471 Crystal, with Cap.....each,	\$2 00

GLEASON WEATHERPROOF GLOBE.

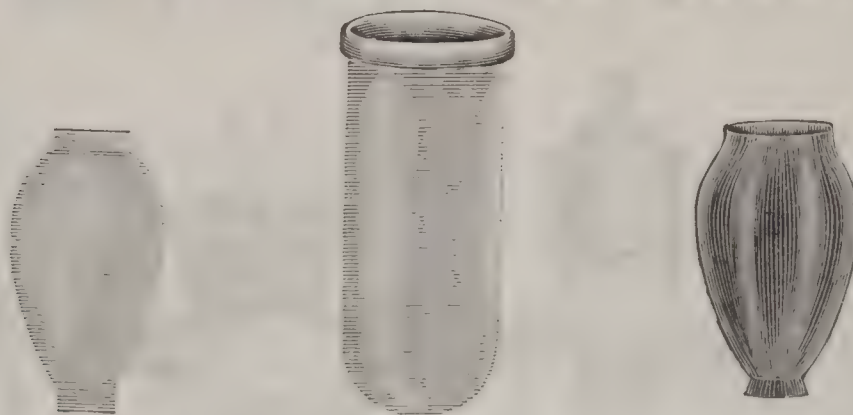


List No. 5472.

For 16 Candle Power Lamp.

List No.	Price.
5472 Crystal, with Cap.....each,	\$1 10

INNER GLOBES FOR ENCLOSED ARC LAMPS.



All prices are invariably F. O. B. Factory. No allowance for breakage. Our responsibility ceases when globes have been delivered in good condition to Transportation Company and receipted for by them.

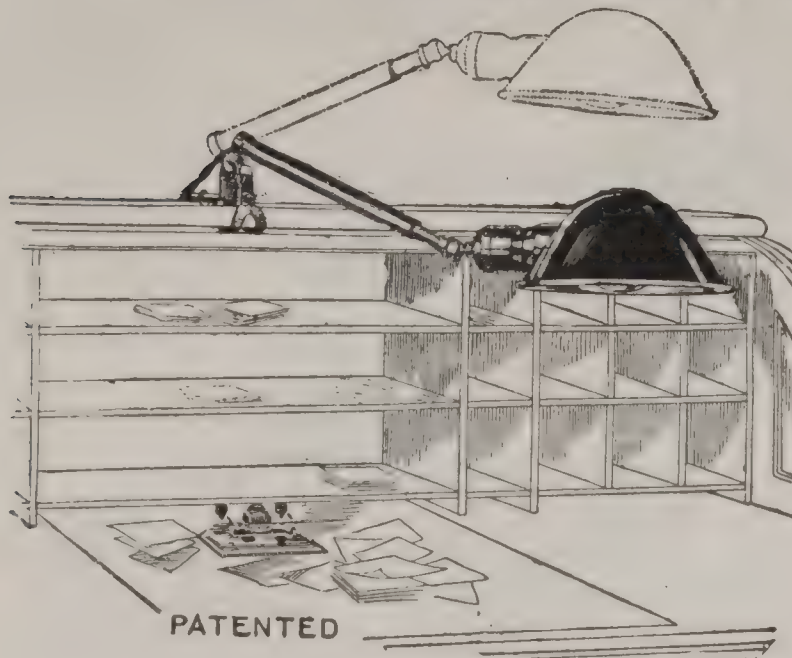
Always order by number given in column, "Manufacturers Listed Number of Globe," where given, and in case of other globes by lamp makers' designation of globe, together with dimensions of top, bottom and length.

LAMP MAKERS' DESIGNATION OF GLOBE.	Mfrs. Listed Number of Globe.	Outside Diam- eter of Top.	Outside Diam- eter of Bottom	Length.	Number of Globes in Pkg. and Cost of Pkg.				Price per Dozen, Clear Globes.	Price per Doz. Opalescent, Light Opal, Dense Opal.
					No. of Doz.	Cost of Pkg	No. of Doz.	Cost of Pkg		
Adams-Bagnall Electric Co., No. 2	110	2 1/8	...	6 1/8	3	30	12	60	\$3 30	3 90
Adams-Bagnall Electric Co., No. 4	121	2 1/8	...	6 1/4	3	30	12	60	3 30	3 90
Adams-Bagnall Electric Co., No. 10 .....	.....	2 1/8	...	6 1/2	3	30	12	60	3 30	3 90
Adams-Bagnall Electric Co., No. 11 .....	.....	2 1/8	1 1/4	6 1/2	3	30	12	60	2 50	3 10
Adams-Bagnall Electric Co., No. 13	64	2 1/8	...	6 1/2	3	30	12	60	3 30	3 90
Adams-Bagnall Electric Co., No. 14	63	2 3/4	...	7 1/2	3	40	...	...	3 30	3 90
Adams-Bagnall Electric Co., No. 15	128	2 3/4	1 1/4	7	...	...	12	60	2 50	3 10
Chicago Edison, No. 2	126	1 1/2	1 3/8	6	3	30	12	60	2 50	3 10
Fort Wayne Electric Works, "Long" .....	.....	1 7/8	1 1/8	6 1/2	3	30	12	60	2 50	3 10
Fort Wayne Electric Works, "Short" .....	.....	1 7/8	1 1/8	5 7/8	3	30	12	60	2 50	3 10
Fort Wayne Electric Works, No. 6846 .....	.....	2 3/4	0	7 1/2	3	30	12	60	3 30	3 90
General Electric, A 1 .....	.....	2	...	...	...	...	...	...	...	...
General Electric Co., No. 2	72	2	1 3/8	5 1/8	3	30	12	60	2 50	3 10
General Electric Co., No. 3	55	2	1 3/8	6 1/2	3	30	12	60	2 50	3 10
General Electric Co., "Old No. 3" .....	.....	2	1 3/8	6 1/2	3	30	12	60	2 50	3 10
General Electric Co., No. 4	73	2	1 3/8	4	3	30	12	60	2 50	3 10
General Electric Co., No. 5	54	1 7/8	1 3/8	5 7/8	3	30	12	60	2 50	3 10
General Electric Co., No. 7	114	2	1 3/8	7 1/2	3	40	...	...	2 50	3 10
General Electric Co., No. 8	52	1 7/8	1 1/4	6 1/8	3	30	12	60	2 50	3 10
General Electric Co., No. 16 .....	.....	2 1/8	0	5 1/4	3	30	12	60	3 30	3 90
General Electric Co., No. 23 .....	.....	2 3/4	1 3/8	6 1/2	3	30	12	60	2 50	3 10
General Electric Co., No. 25 .....	.....	2 3/4	1 3/8	5 7/8	3	30	12	60	2 50	3 10
General Electric Co., No. 26 .....	.....	2 7/8	0	5 1/4	3	30	12	60	3 30	3 90
General Electric Co., No. 36	112	3 1/4	0	7 3/8	3	40	...	...	3 30	3 90
General Electric Co., No. 39	124	3 3/4	0	6	3	40	...	...	3 30	3 90
General Electric Co., No. 46	63	2 3/4	0	7 1/2	3	40	...	...	3 30	3 90
General Electric Co., No. 49	116	2 3/4	0	8 1/8	3	40	...	...	3 30	3 90
General Electric Co., "K 105401" .....	.....	3 1/4	0	7 1/8	3	40	...	...	3 30	3 90
General Electric Co., "Double Carbon"	108	3 1/2	0	7 7/8	3	40	...	...	4 00	4 30
General Electric Co., "Headlight"	107	1 5/8	1 3/8	4	...	...	12	40	2 50	3 10
General Electric Co., "K 107343" .....	.....	2 3/8	1 3/8	5 3/4	3	30	12	60	2 50	3 10
General Incandescent Arc Light Co., No. 1	60	1 7/8	1 1/4	5 1/2	3	30	12	60	2 50	3 10
General Incandescent Arc Light Co., No. 3	82	1 1/2	1 1/4	5	3	30	12	60	2 50	3 10
General Incandescent Arc Light Co., No. 7 .....	.....	1 1/2	1 1/4	5	3	30	12	60	2 50	3 10
General Incandescent Arc Light Co., No. 9	56	1 1/2	1 1/4	5 3/4	3	30	12	60	2 50	3 10
General Incandescent Arc Light Co., No. 10 .....	.....	1 5/8	1 1/4	5 3/4	3	30	12	60	2 50	3 10
General Incandescent Arc Light Co., No. 11	58	1 1/2	1 1/4	6 3/8	3	30	12	60	2 50	3 10
General Incandescent Arc Light Co., No. 12	57	1 1/2	1 1/4	7	3	30	12	60	2 50	3 10
Gen. Incdst. Arc L't Co., No. 12 (New Type)	111	1 1/2	1 1/4	7 1/8	3	30	12	60	2 50	3 10
General Incandescent Arc Light Co. No. 14	123	2 3/4	0	7 1/8	3	40	...	...	3 30	3 90
Gen. Incdst. Arc L't Co (Impr'd No. 12) .....	.....	1 5/8	1 1/4	7	3	30	12	60	2 50	3 10
Gen. Incandescent Arc Light Co., No. 2850 .....	.....	1 5/8	1 1/4	6	3	30	12	60	2 50	3 10
General Incandescent Arc Light Co., No. 15	112	3 1/4	0	7 3/8	3	40	...	...	3 30	3 90

INNER GLOBES CONTINUED.

LAMP MAKERS' DESIGNATION OF GLOBE.	Mfrs. Listed Number of Globe.	Outside Diam- eter of Top.	Outside Diam. of Bottom.	Length.	Number of Globes in Pkg. and Cost of Pkg.				Price per Doz., Clear Globes.	Price per Doz., Opalescent, Light Opal, Dense Opal.
					No. of Doz.	Cost of Pkg.	No. of Doz.	Cost of Pkg.		
Helios-Upton Co., No. 2	69	2 $\frac{1}{2}$ $\frac{3}{8}$	1 $\frac{5}{8}$	5 $\frac{1}{2}$	3	30	12	60	\$2 50	\$3 10
Helios-Upton Co., No. 3	85	2 $\frac{5}{8}$	1 $\frac{1}{8}$	6 $\frac{3}{4}$	3	30	..	..	2 50	3 10
Helios-Upton Co., No. 4	86	2 $\frac{5}{8}$	1 $\frac{1}{8}$	8	3	40	..	..	3 30	3 90
Helios-Upton Co., No. 5	..	3 $\frac{1}{8}$	0	4 $\frac{3}{4}$	3	30	12	60	3 30	3 90
Helios-Upton Co., No. 6	87	3 $\frac{1}{4}$	0	8 $\frac{7}{8}$	3	40	..	..	4 00	4 60
Helios-Upton Co., No. 7	..	3 $\frac{1}{4}$	0	8	3	40	..	..	3 30	3 90
Helios-Upton Co., No. 8	90	3 $\frac{1}{4}$	0	8 $\frac{7}{8}$	3	40	..	..	3 30	3 90
Helios-Upton Co., No. 9	91	3	0	7 $\frac{3}{4}$	3	40	..	..	3 30	3 90
Helios-Upton Co., No. 10	92	3 $\frac{1}{8}$	0	8	3	40	..	..	3 30	3 90
Helios-Upton Co., No. 11	..	3 $\frac{1}{8}$	0	7 $\frac{7}{8}$	3	40	..	..	3 30	3 90
Helios-Upton Co., No. 12	..	4 $\frac{1}{4}$	0	4 $\frac{3}{4}$	3	40	..	..	4 00	4 60
Helios-Upton Co., No. 15	..	4 $\frac{1}{2}$	0	3 $\frac{1}{2}$	3	40	..	..	3 30	3 90
Helios-Upton Co., Style "M"	70	1 $\frac{3}{4}$	1 $\frac{5}{8}$	5 $\frac{3}{4}$	3	30	12	60	2 50	3 10
Helios-Upton Co., Style "P"	68	1 $\frac{3}{4}$	1 $\frac{1}{4}$	5 $\frac{1}{8}$	3	30	12	60	2 50	3 10
Helios-Upton Co., Style "P2"	102	1 $\frac{3}{4}$	1 $\frac{1}{4}$	5 $\frac{3}{4}$	3	30	12	60	2 50	3 10
Helios-Upton Co., Style "R"	88	2 $\frac{1}{2}$	1 $\frac{1}{4}$	7	3	40	..	..	2 50	3 10
Helios-Upton Co., Style "T"	71	1 $\frac{3}{4}$	1 $\frac{1}{4}$	7	3	30	12	60	2 50	3 10
Helios-Upton Co., "6 $\frac{1}{2}$"	..	..	..	6 $\frac{1}{2}$	..	..	..	..	2 50	3 10
Imperial, No. 8	94	3 $\frac{1}{8}$	0	8 $\frac{1}{8}$	3	40	..	..	3 30	3 90
Imperial, Style "A"	..	2	1 $\frac{3}{8}$	5 $\frac{7}{8}$	3	30	12	60	2 50	3 10
Imperial, Style "B"	..	2	1 $\frac{1}{8}$	6 $\frac{1}{2}$	3	30	12	60	2 50	3 10
Jandus Electric Co., No. 1	60	2 $\frac{3}{8}$	1 $\frac{3}{8}$	5 $\frac{3}{4}$	3	30	12	60	2 50	3 10
Jandus Electric Co., No. 6	81	2 $\frac{1}{8}$	1 $\frac{1}{4}$	6 $\frac{1}{2}$	3	30	12	60	2 50	3 10
Jandus Electric Co., No. 8	52	1 $\frac{7}{8}$	1 $\frac{1}{4}$	6 $\frac{1}{8}$	3	30	12	60	2 50	3 10
Jandus Electric Co., No. 10	53	2 $\frac{7}{8}$	1 $\frac{1}{4}$	6 $\frac{1}{8}$	3	30	12	60	2 50	3 10
Jandus Electric Co., No. 11	65	3 $\frac{1}{4}$	0	7 $\frac{3}{8}$	3	40	..	..	3 30	3 90
Jandus Electric Co., No. 12	98	2 $\frac{7}{8}$	0	6	..	..	12	60	3 30	3 90
Jandus Electric Co., No. 13	..	3 $\frac{1}{4}$	0	8 $\frac{1}{8}$	3	40	..	..	3 30	3 90
Jandus Electric Co., No. 15	100	3 $\frac{5}{8}$	0	7 $\frac{1}{4}$	3	40	..	..	3 30	3 90
Jandus No. 17	..	3 $\frac{5}{8}$	0	8 $\frac{3}{4}$	3	50	..	..	3 30	3 90
Jandus Electric Co., (Special Shape)	75	1 $\frac{1}{8}$	1 $\frac{3}{8}$	6 $\frac{1}{8}$	3	30	12	60	2 50	3 10
Jandus Electric Co., (Creaghead)	..	1 $\frac{1}{8}$	1 $\frac{1}{4}$	6 $\frac{1}{8}$	3	30	12	60	2 50	3 10
Manhattan, No. 1	60	2 $\frac{3}{8}$	1 $\frac{3}{8}$	5 $\frac{3}{4}$	3	30	12	60	2 50	3 10
Manhattan, No. 2	63	2 $\frac{3}{4}$	0	7 $\frac{1}{2}$	3	40	..	..	3 30	3 90
Manhattan, No. 8	52	1 $\frac{7}{8}$	1 $\frac{1}{4}$	6 $\frac{1}{8}$	3	30	12	60	2 50	3 10
Manhattan, No. 9	56	1 $\frac{1}{8}$	1 $\frac{1}{8}$	5 $\frac{3}{4}$	3	30	12	60	2 50	3 10
Manhattan, No. 11	58	1 $\frac{1}{8}$	1 $\frac{1}{8}$	6 $\frac{3}{4}$	3	30	12	60	2 50	3 10
Manhattan, No. 12	59	2 $\frac{5}{8}$	0	7 $\frac{1}{2}$	3	40	..	..	3 30	3 90
Manhattan, No. 12 (New Type)	104	2 $\frac{1}{8}$	0	7 $\frac{1}{2}$	3	40	..	..	3 30	3 90
Manhattan, No. 13	61	2 $\frac{5}{8}$	1 $\frac{3}{8}$	6 $\frac{1}{2}$	3	30	12	60	2 50	3 10
Manhattan, No. 15	..	2 $\frac{5}{8}$	1 $\frac{3}{8}$	6 $\frac{1}{2}$	3	30	12	60	2 50	3 10
Pioneer	56	1 $\frac{1}{8}$	1 $\frac{3}{8}$	5 $\frac{3}{4}$	3	30	12	60	2 50	3 10
Pioneer	..	1 $\frac{3}{4}$	1 $\frac{1}{4}$	5 $\frac{7}{8}$	3	30	12	60	2 50	3 10
Pioneer	..	1 $\frac{3}{4}$	1 $\frac{3}{8}$	6 $\frac{1}{8}$	3	30	12	60	2 50	3 10
C. J. Toerring Co., No. 1	77	2 $\frac{5}{8}$	0	6 $\frac{3}{4}$	3	30	12	60	3 30	3 90
C. J. Toerring Co., No. 2	125	2 $\frac{5}{8}$	0	8	3	40	..	..	3 30	3 90
C. J. Toerring Co., No. 3	78	3 $\frac{1}{4}$	0	8 $\frac{1}{8}$	3	40	..	..	4 00	4 60
C. J. Toerring Co., No. 4	120	3 $\frac{1}{4}$	0	8 $\frac{1}{2}$	3	40	..	..	4 00	4 60
Toerring Mogul	..	7 $\frac{1}{4}$	0	10	3	30	..	..	8 00	9 00
Western Electric Co.	51	1 $\frac{7}{8}$	1 $\frac{3}{8}$	5 $\frac{1}{8}$	3	30	12	60	2 50	3 10
Western Electric Co., Style "H"	..	1 $\frac{7}{8}$	1 $\frac{3}{8}$	6 $\frac{1}{8}$	3	30	12	60	2 50	3 10
Western Electric Co., Style "L"	50	3 $\frac{3}{4}$	0	7 $\frac{7}{8}$	3	50	..	..	3 30	3 90
Western Electric Co., Style "P"	117	3 $\frac{1}{4}$	0	7 $\frac{3}{4}$	3	50	..	..	4 00	4 60
Western Electric Co., Style "Q"	118	3 $\frac{1}{4}$	0	8 $\frac{3}{4}$	3	50	..	..	4 00	4 60
Western Electric Co., Style "R"	12	3 $\frac{3}{4}$	0	8 $\frac{1}{8}$	3	50	..	..	4 00	4 60

THE FERGUSSON DESK LIGHT.



This bracket has two ball-and-socket joints which makes it adjustable to any desired position. It is not necessary to loosen or tighten thumb screw to bring lamp into any position. Any adjustment is possible by simply turning the light where you want it. The lamp may be placed below the level of the eye and still illuminate the whole top of the desk, or may be instantly turned into any pigeon-hole or corner.

The "Telescoping" arm is extendable from ten to eighteen inches.

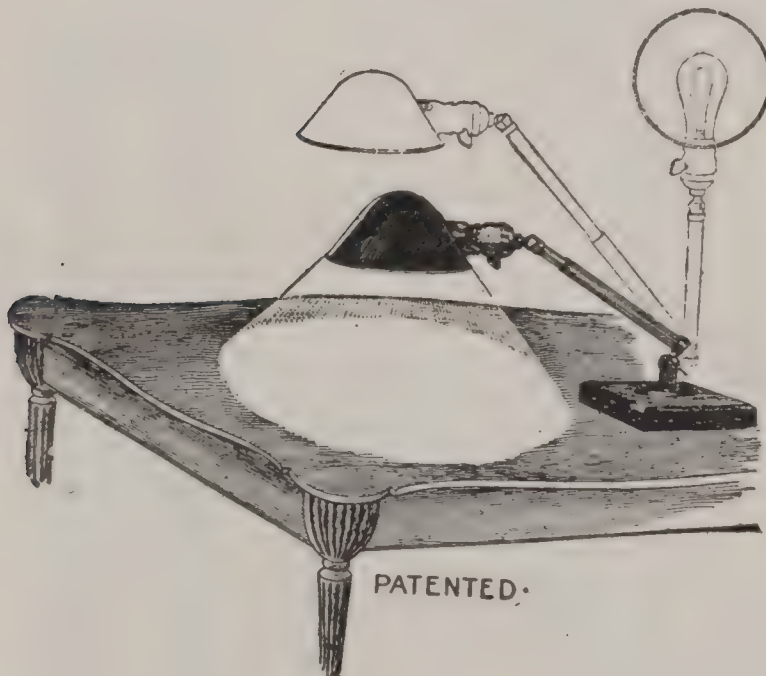
It will fit any desk and will not scratch or mar it in any way.

List No.	Price Each.
11380	Nickel-plated Desk Light only, no wire socket or shade..... \$3 20
11381	Brushed Brass Desk Light, no wire socket or shade..... 3 50
	Wired complete with 3 yards cord, plug, socket and shade, extra..... 2 00

TABLE OR DESK PORTABLE.

This is a perfect portable for library or office use. It is beautiful in appearance, the metal arm being mounted on a marble base which has felt on the bottom of same to prevent marring or scratching. The arm is extendable from ten to eighteen inches and has the two-ball and socket joints, allowing the light to be concentrated at any desired position.

List No.	Price Each.
11382	Nickel-plated Portable only, no wire socket or shade..... \$3 50
11383	Brushed Brass Portable only, no wire socket or shade..... 3 80
	Wired complete with 3 yards cord, plug, socket and shade extra..... 2 00



THE ELECTROGRIP.

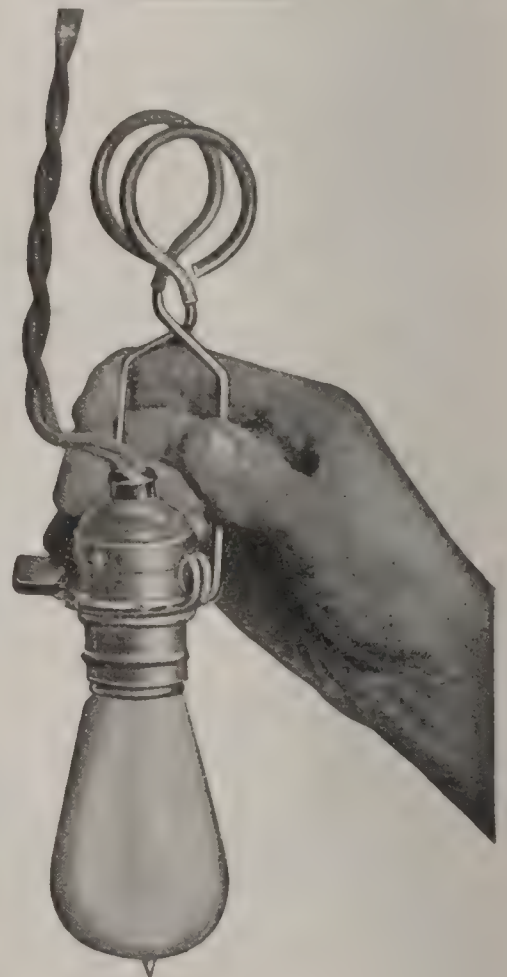
A universal adjuster for suspended electric lamps.

By pressing the arms to the centre the jaws will open, then place object to be attached to between them, the springs will do the rest.

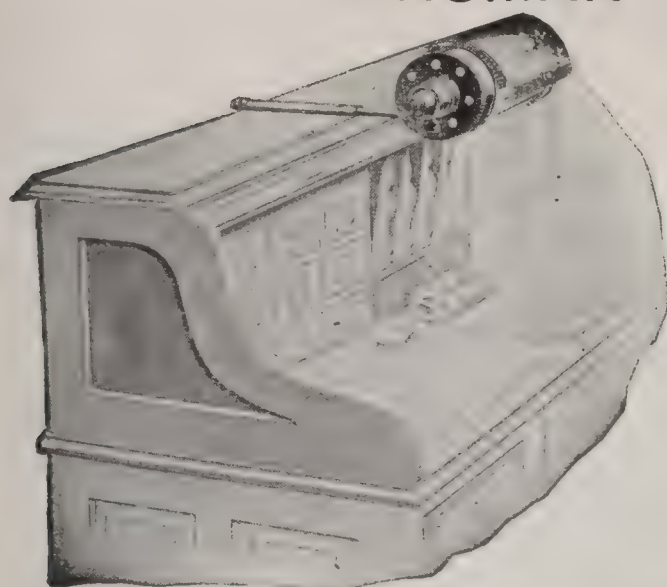
Will not wear insulation off cord, and on defective cords and sockets prevents short circuiting, as the jaws are heavily insulated.

Just the thing for stores, offices, mills, factories, hotels, hospitals, libraries, etc.

List No.	Price.
11384	Electrogrips..... per doz., \$3 00



KINSMAN DESK LIGHT.

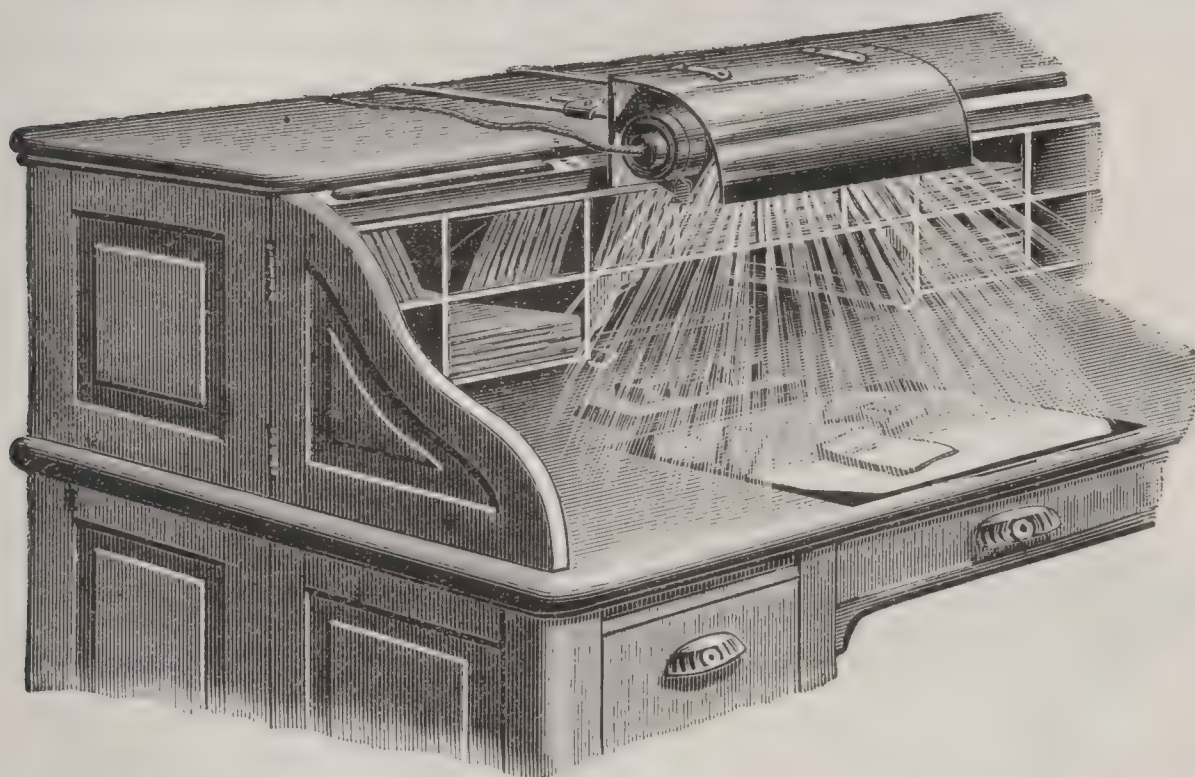


Has many advantages over any Desk Light shade or reflector in the market. The **Eye Shade**, which serves as a reflector as well may be moved by a touch to any desired angle, so that the desk alone may be illuminated, or an illumination may be obtained a short distance from the desk. The inner glass cylinder has one clear surface and one of ground glass to soften the light, if desired, turned by a knob at the further end. There is an adjustable arm, enabling the light to be drawn forward or pushed back at pleasure.

All these changes in use may be made readily, without rising from one's chair. The fixture may be clamped to the desk without marring it.

List No.	Price.
6420 Polished Brass, with Socket, not wired,	\$6 00
6421 Nickel-plated " " "	6 00

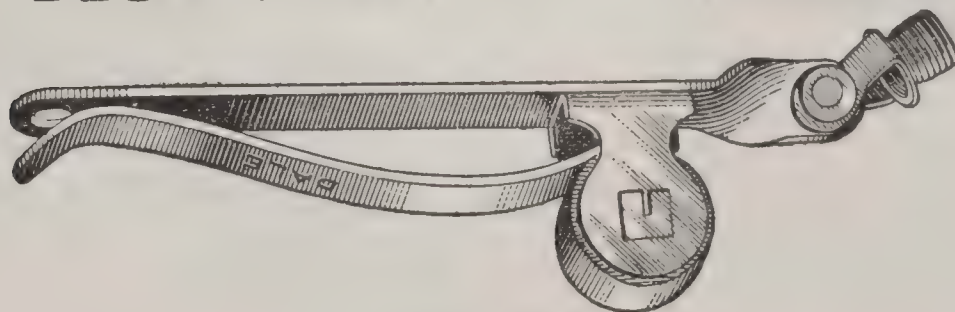
KINSMAN DAYLIGHT DESK LIGHT.



This lamp is adjustable and will fit any desk. The light is soft and abundant and so well distributed as to leave no shadows or dark corners on the desk, yet the lamp is well shaded from the eyes. Nickel-plated and nicely finished.

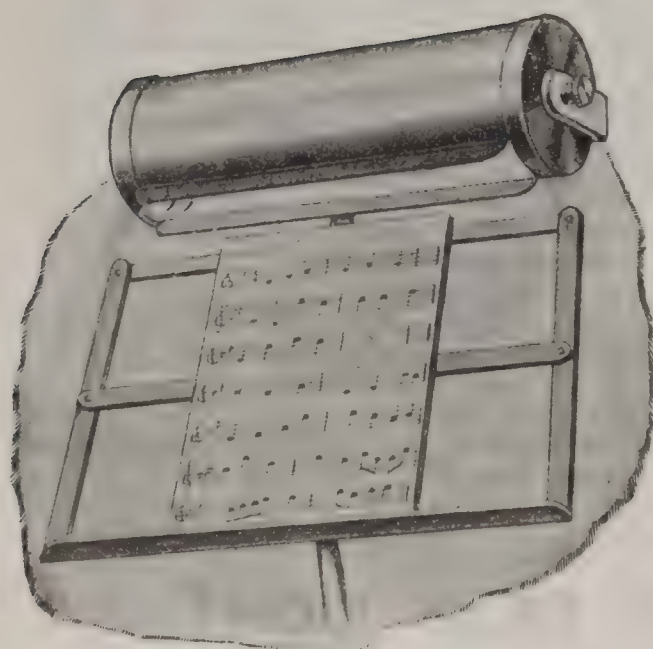
List No.	Price.
11387 Daylight Lamp complete with Socket, not wired.....each,	\$3 00

DESK CLAMP OR BRACKET.



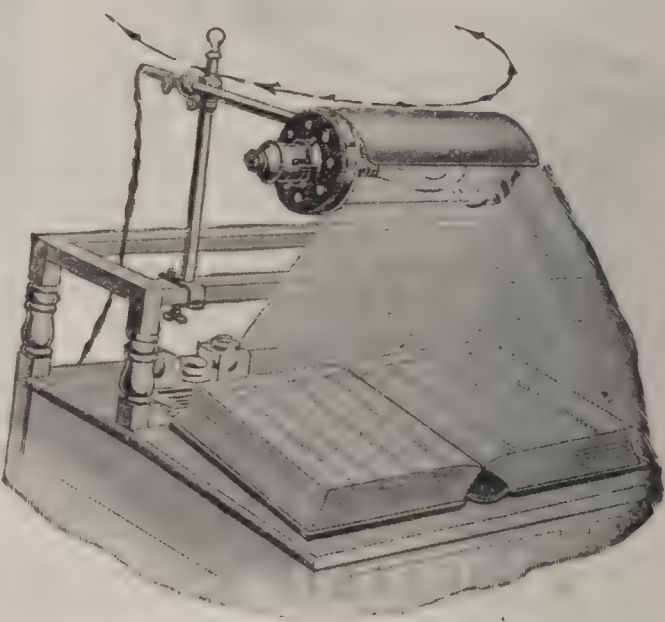
List No.	List No. 6424.	Price.
6424	For attaching to pigeon-hole of roll-top desk	each, \$0 70

PORTABLES.



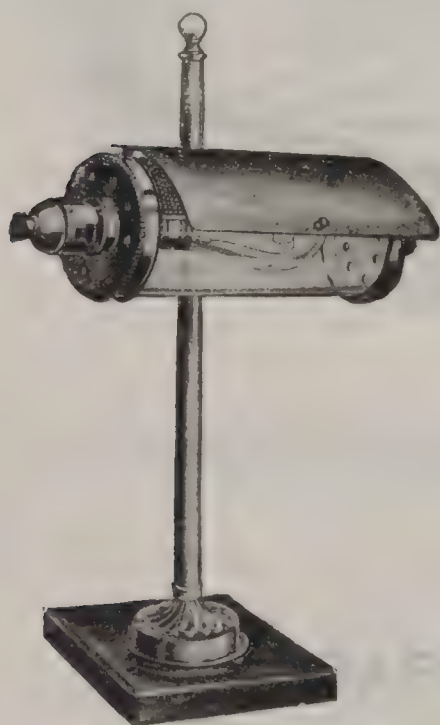
The Ward Orchestra Lamp.

List No.	Price.
12899 No. 10. Ward Orchestra Lamp, dark green enamel, for one lamp, with Socket.....	\$2 00
12900 No. 10a. Ward Orchestra Lamp, dark green enamel, for two lamps, with Sockets.....	4 00



The Kinsman Bookkeepers' Desk Lamp.

List No.	Price.
12905 Nickel-plated Desk Lamp, with Socket.....	\$7 00
12906 Old Brass Desk Lamp, with Socket.	7 00



Kinsman Portable.

A Kinsman Hood, mounted on an adjustable stand. A very effective lamp.

12897 Kinsman Portable, finished in Nickel-plate, with Socket.....	\$7 00
12898 Kinsman Portable, Old Brass, with Socket.....	7 00

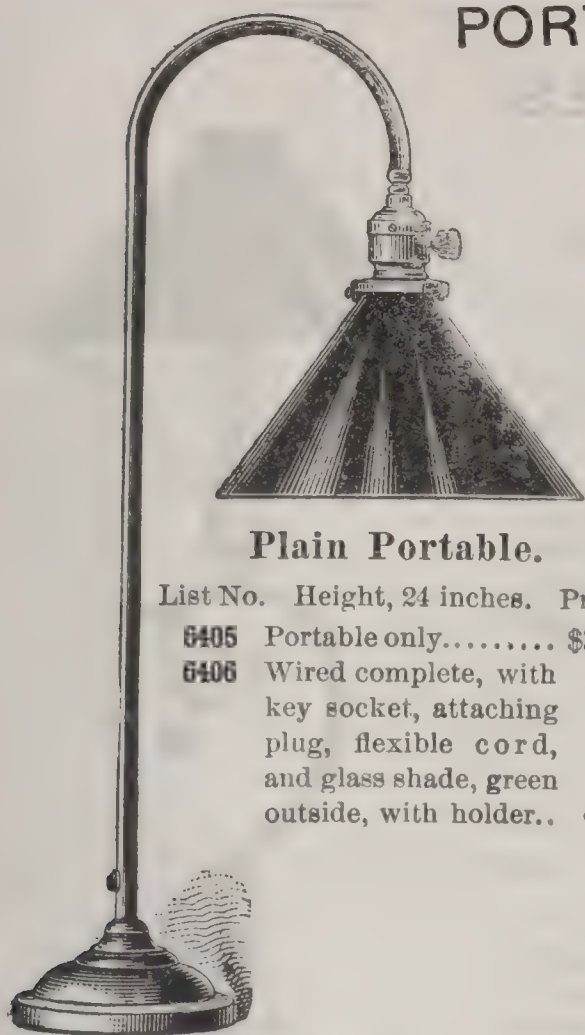


The Ward Pulpit Lamp.

Can be neatly arranged on a pulpit to throw the light where desired without allowing any light to escape. It has adjustment for raising or lowering. It is now being used in some of the leading churches.

List No.	Price.
12903 Pulpit Lamp, Nickel-plated, with Socket.....	\$5 00
12904 Pulpit Lamp, Old Brass, with Socket	5 00

PORTABLES.



Plain Portable.

List No. Height, 24 inches. Price.

- | | | |
|------|---|--------|
| 6405 | Portable only..... | \$2 00 |
| 6406 | Wired complete, with key socket, attaching plug, flexible cord, and glass shade, green outside, with holder.. | 4 00 |

List No. 6406



Standard Portable.

List No. Height, 24 inches. Price.

- | | | |
|------|---|--------|
| 6407 | Portable only..... | \$3 00 |
| 6408 | Wired complete, with key socket, attaching plug, flexible cord, and opal dome shade, with holder..... | 5 00 |

List No. 6408

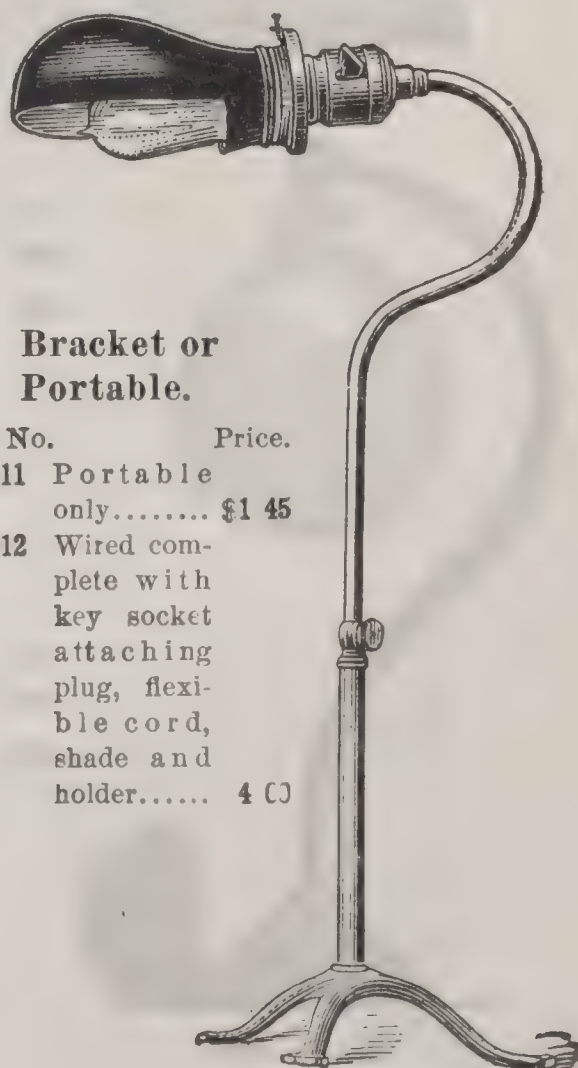


Adjustable Lamp.

Adjustable Standard 20 to 26 inches in height.

- | | |
|----------|--|
| List No. | Price. |
| 6409 | Portable only..... \$1 45 |
| 6410 | Wired complete, same as No. 6406..... 3 45 |

List No. 6410



Bracket or Portable.

List No. Price.

- | | | |
|------|---|--------|
| 6411 | Portable only..... | \$1 45 |
| 6412 | Wired complete with key socket attaching plug, flexible cord, shade and holder..... | 4 00 |

List No. 6412

PORTABLES.

SLATE BASE.



List No. 6396

- | List No. | Price. |
|----------|--|
| 6395 | Portable only.....\$3 50 |
| 6396 | Wired, complete with socket, attaching plug, cord and green glass shade, .....\$5 50 |

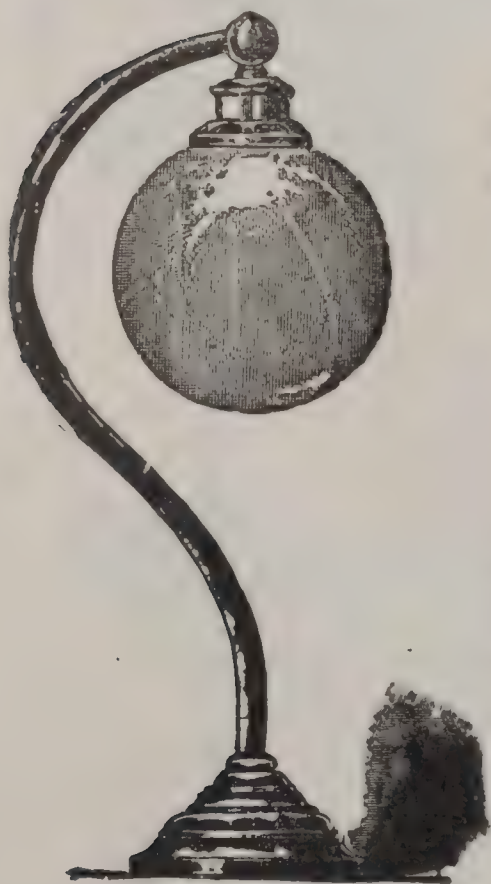
- | List No. | Price. |
|----------|--|
| 6397 | Portable only.....\$3 50 |
| 6398 | Wired, complete with socket, attaching plug, cord and green glass shade, .....\$5 50 |



List No. 6398

Height, 24 inches.

- | List No. | Price. |
|----------|--|
| 6399 | Portable only.....\$3 00 |
| 6400 | Wired, complete with key socket, attaching plug, flexible cord and opal ball, with holder.....\$4 60 |



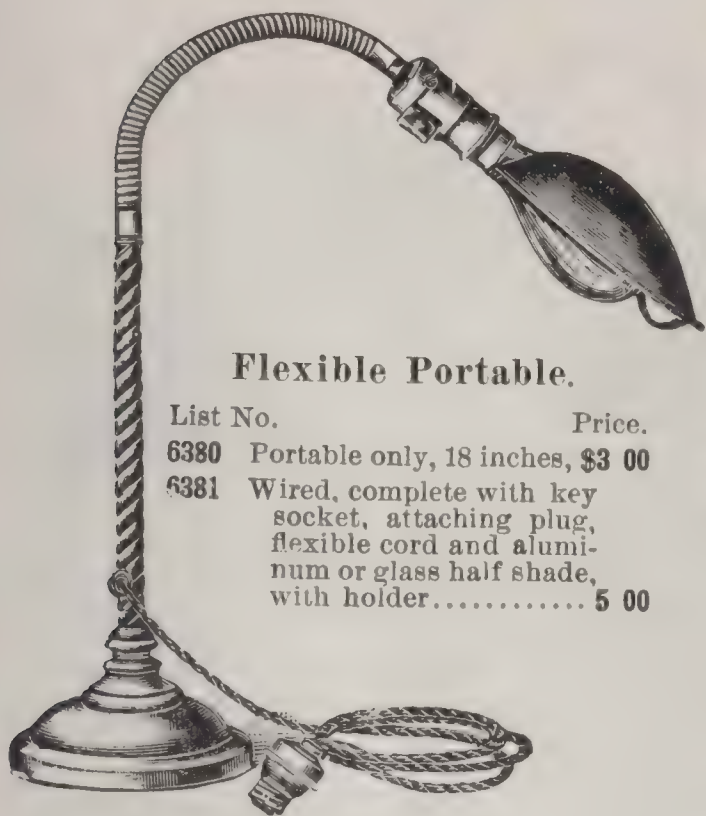
List No. 6400

- | List No. | Price. |
|----------|---|
| 6401 | Portable only.....\$1 50 |
| 6402 | Wired, complete with key socket, attaching plug, flexible cord and opal cone, shade with tripod holder.....\$3 75 |



List No. 6402

PORTABLES.



Flexible Portable.

List No.	Price.
6380 Portable only, 18 inches,	\$3 00
6381 Wired, complete with key socket, attaching plug, flexible cord and aluminum or glass half shade, with holder.....	5 00

List No. 6381.



Flexible Portable.

List No.	Price.
6382 Portable only.....	\$5 50
6383 Wired, complete with key socket, attaching plug, flexible cord	6 50

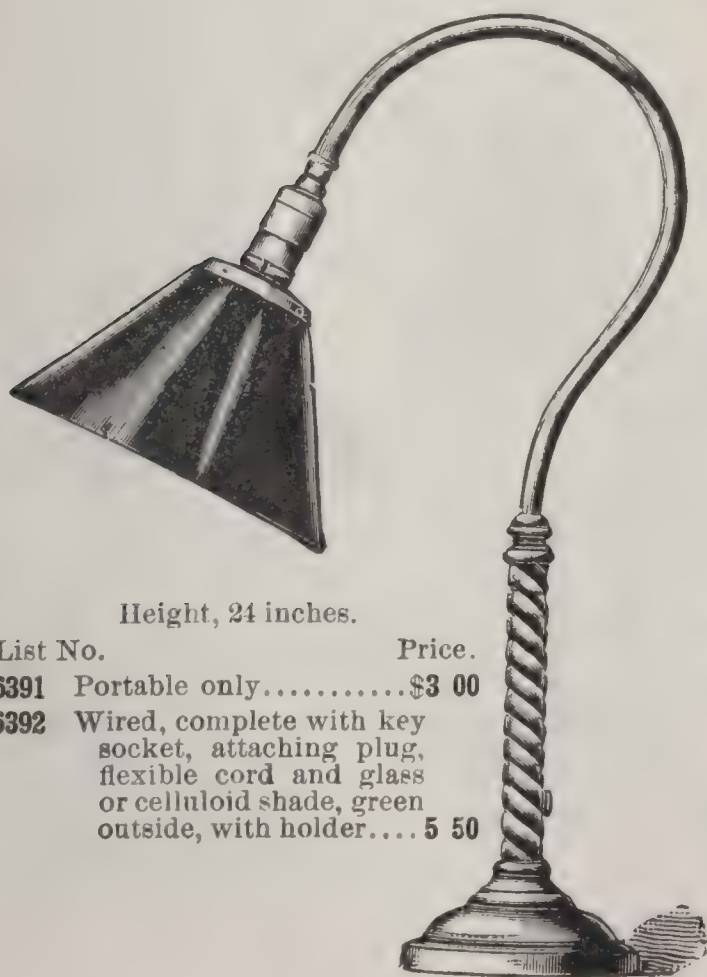
List No. 6383.

List No.	Price.
6385 6 inch.....	\$0 54
6386 9 "	60
6387 12 "	75

Flexibles only.

List No.	Price.
6388 15 inch.....	.. \$0 90
6389 18 "	1 11
6390 24 "	1 50

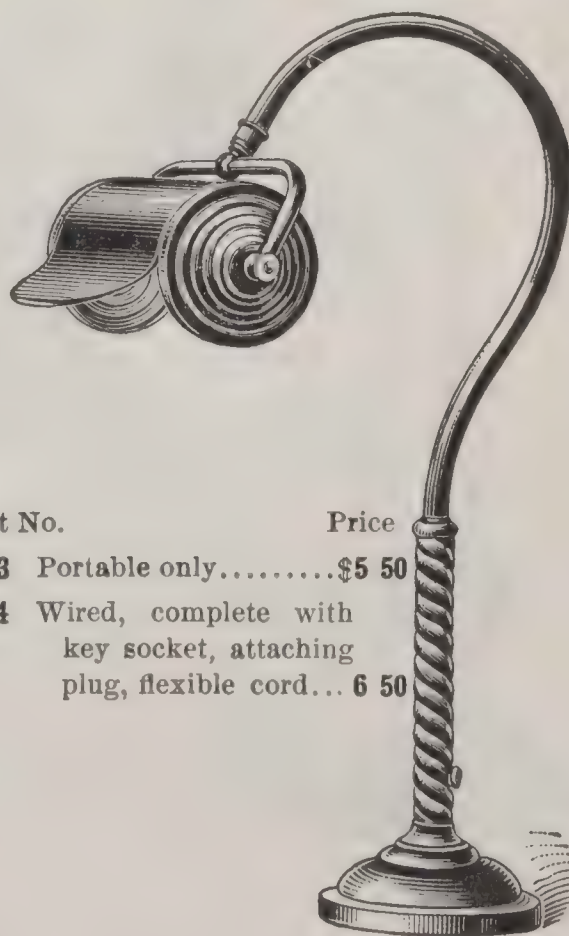
We can fit these flexible extensions to any style portables.



Height, 24 inches.

List No.	Price.
6391 Portable only.....	\$3 00
6392 Wired, complete with key socket, attaching plug, flexible cord and glass or celluloid shade, green outside, with holder....	5 50

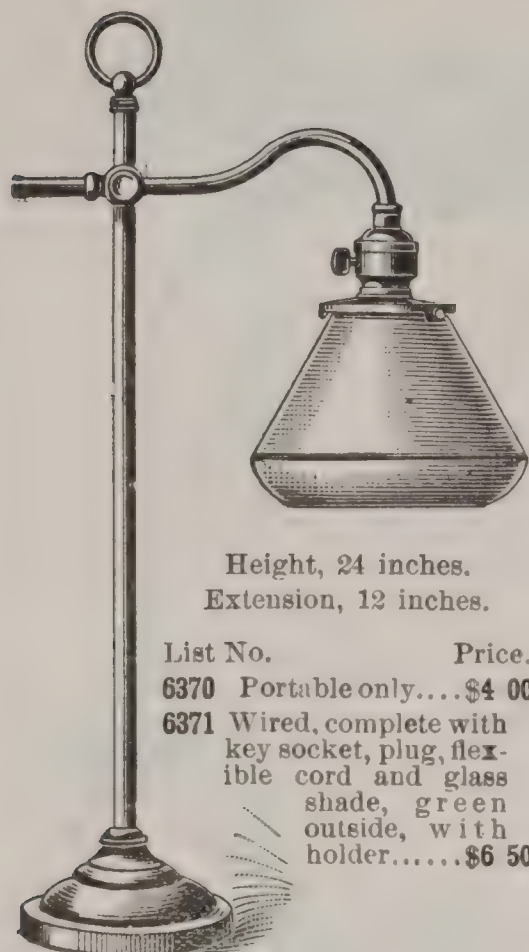
List No. 6392.



List No.	Price.
6393 Portable only.....	\$5 50
6394 Wired, complete with key socket, attaching plug, flexible cord...	6 50

List No. 6394.

EXTENSION PORTABLES.



Height, 24 inches.
Extension, 12 inches.

List No.	Price.
6370 Portable only....	\$4 00
6371 Wired, complete with key socket, plug, flexible cord and glass shade, green outside, with holder.....	\$6 50

List No. 6371



2 Light Extension Portable.

Height, 24 inches.
Extension, 18 inches.

The arm can be moved up and down, in and out, and from side to side.

List No.	Price.
6372 Portable only..	\$6 00
6373 Wired, complete with key sockets, attaching plug, flexible cord and glass shade, green outside, with holder...	\$10 60

List No. 6373



Height, 24 inches.
Extension, 12 inches.

List No.	Price.
6374 Portable only.....	\$6 00
6375 Wired, complete with key socket, attaching plug, flexible cord and glass shade, green outside, with holder.....	\$8 00

List No. 6375

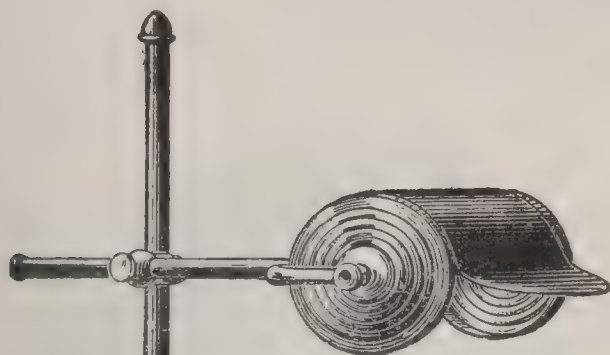


Height, 18 inches.
Extension, 8 inches.

List No.	Price.
6376 Portable only.....	\$5 00
6377 Wired, complete with key socket, attaching plug, flexible cord and glass shade, green outside, with holder.....	\$7 00

List No. 6377

EXTENSION PORTABLES.



- | List No. | Price. |
|----------|---|
| 6360 | Portable only.....\$6 50 |
| 6361 | Wired, complete with key socket, attaching plug and flexible cord..... 7 50 |



List No. 6360



Height, 24 inches.
Extension, 12 inches.
The arm can be moved up and down, in and out, and from side to side.

- | List No. | Price. |
|----------|--|
| 6362 | Portable only.....\$4 00 |
| 6363 | Wired, complete with key socket, attaching plug, flexible cord and glass shade, green outside, with holder..6 50 |



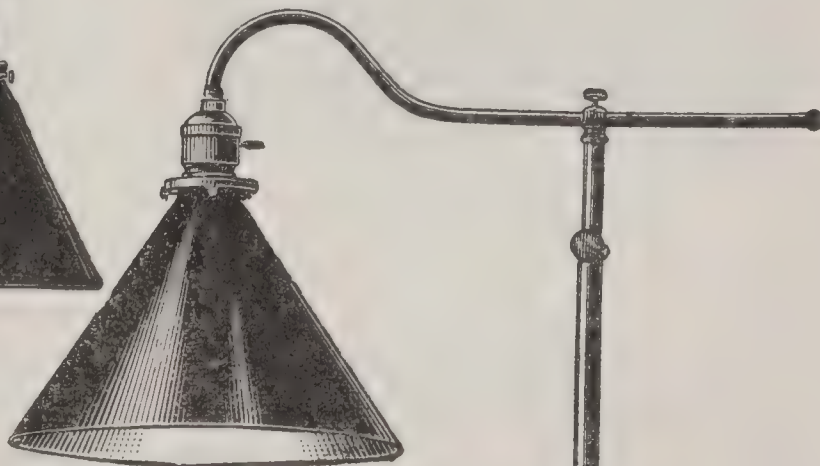
List No. 6363



Extension Portable with Slate Base.

Height, 24 inches.
Extension, 12 inches.

- | List No. | Price. |
|----------|--|
| 6364 | Portable only....\$4 00 |
| 6365 | Wired, complete same as No. 6363, 6 50 |



Adjustable Arm, 17 inches long.
Adjustable Standard 14 to 24 inches high
Lamp swings clear around the Standard.

The Cast Iron Base under Canopy must be screwed to table.

- | List No. | Price. |
|----------|--|
| 6366 | Standard and Arm only..\$1 95 |
| 6367 | Wired, complete same as No. 6363..... 4 45 |



List No. 6367

List No. 6365

PORTABLES.



List No. 12861



List No. 12863.

Pompeiiian Finish Only.

List No.		Price.
12860	Portable only.....	\$1 90
12861	Portable, wired complete as shown.....	5 00

Regular Finish Old Brass and Black.

List No.		Price.
12862	Portable only.....	\$3 25
12863	Portable, wired complete....	6 40

Special Finishes:
For Jap Bronze and Verde, add 35c.

Note.—Prices of above portables wired complete include key socket, three yards silk cord with attachment plug, ten-inch green glass, dome shade, white inside, with ring shade holder.
Lamps not included.

PORTABLES.



List No. 12865.



List No. 12367.

**Regular Finish Old Brass
and Black.**

List No.		Price.
12864	Portable only.....	\$3 90
12865	Portable, wired complete.....	7 00
Special Finishes:		
For Jap Bronze and Verde, add 35c.		

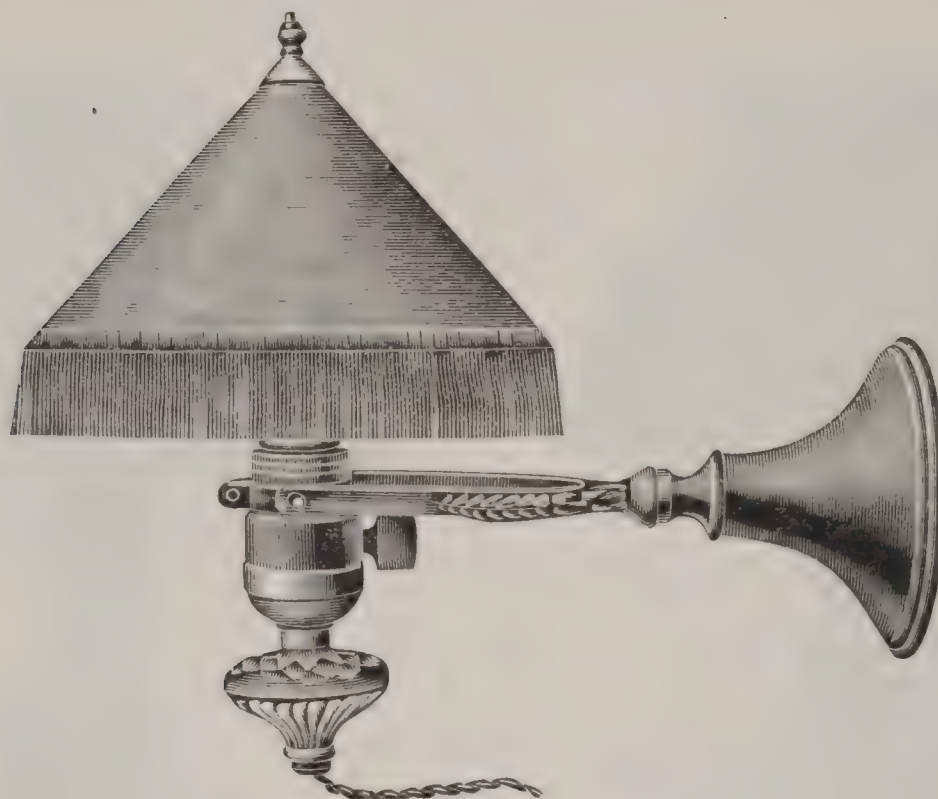
**Regular Finish Old Brass
and Black.**

List No.		Price.
12866	Portable only.....	\$4 65
12867	Portable, wired complete.....	7 85
Special Finishes:		
For Jap Bronze and Verde, add 45c.		
For Pompeian, add \$1 60.		

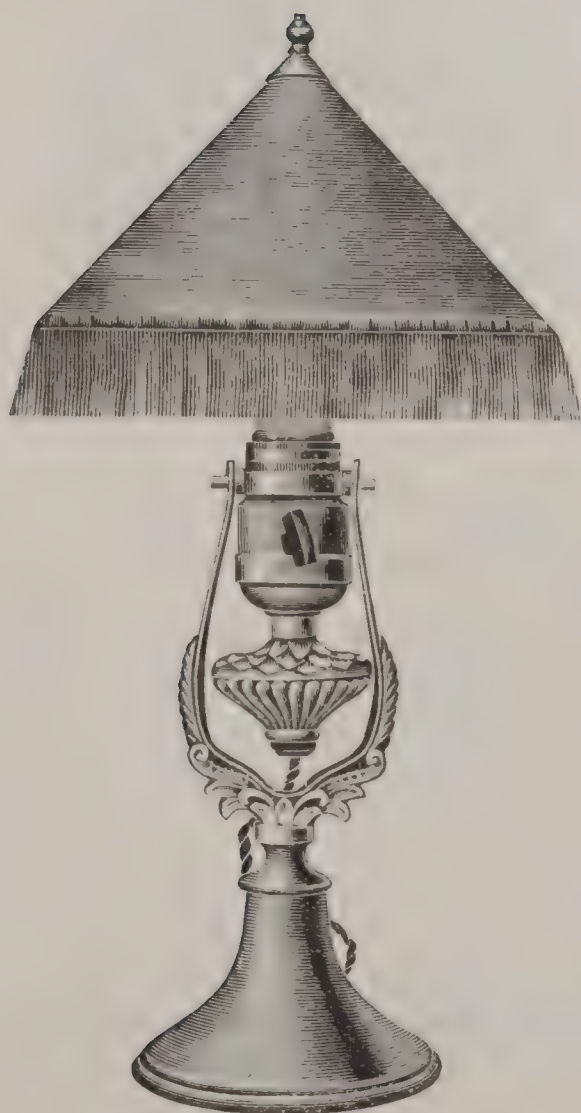
Note.—Prices of above portables wired complete include key socket, three yards silk cord with attachment plug, ten-inch green glass dome shade, white inside, with ring shade holder.

Lamps not included.

PORTABLES.



List No. 6356. As a Bracket.



Combination Bracket and Portable.

Regular Finish Polished Brass.

Special Finishes: For Jap Bronze, Butler's Silver or Pompeian, add 50c.

List No.	Price.
6355 Portable, with White-Lined Silk-Trimmed Shade and Holder.....	\$4 00
6356 Portable, Wired, complete with Key Socket, Three Yards of Silk Cord and attachment plug, Linen Shade, silk trimmed, and Holder.....	5 00

This beautiful and artistic fixture will be an ornament to any home. Lamps not included.

Linen Shades.

White Lined, Silk Trimmed, for above Lamps.

List No.	Price.
6359 Shade, with Special Holder.....per doz.,	\$7 00

Shades furnished in the following colors: Light Green, Red, Dark Green, Pink, Yellow, Blue.

PORTABLES.



List No. 6368. Used as a Bracket.

Combination Bracket and Portable.

STOCK FINISHES: SHADED BRASS, STATUARY
BRONZE, VERDE, BUTLER'S SILVER.

This handsome article can be used either as a Portable Stand
Lamp or as a Wall Bracket, A very neat
and graceful design.



List No. 6368. Used as
a Portable.

List No.		Price.
6368	Portable, with white lined silk-trimmed shade and holder only.....	\$3 50
6369	Portable, wired, complete with key socket, three yards of silk cord and attachment plug, linen shade, silk-trimmed, and holder.....	4 50

LAMPS NOT INCLUDED.

ELECTRIC CHANDELIERS.

For Stores and Offices.

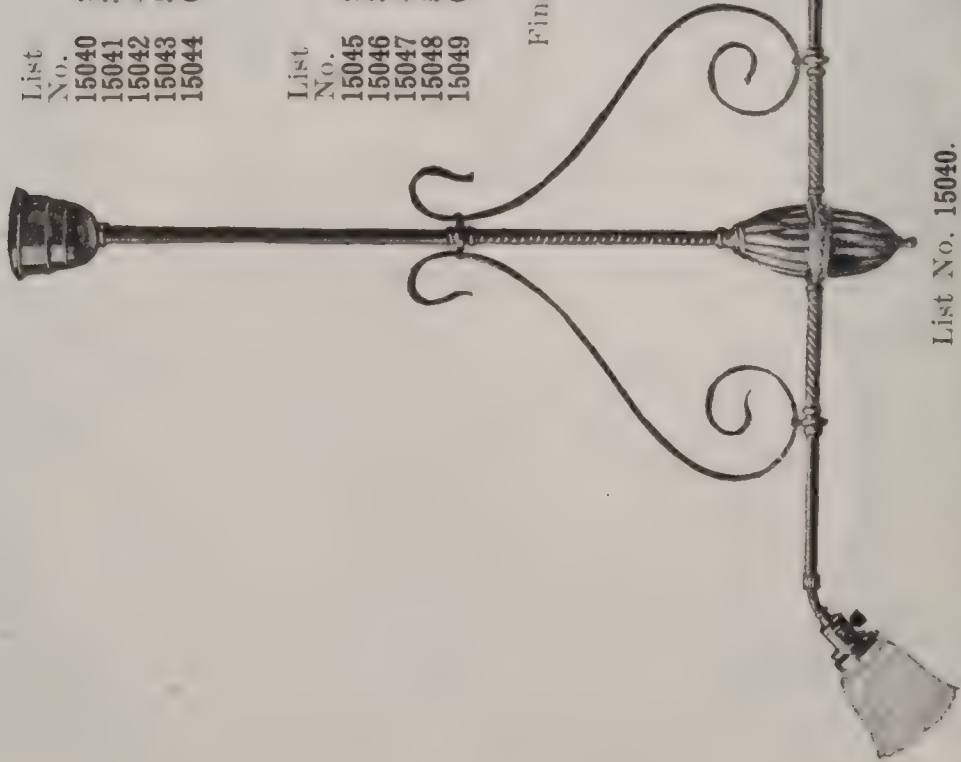
STOCK FINISH, POLISHED BRASS.

List No.		Price.
15040	2 Light.....	\$12 95
15041	3 ".....	15 84
15042	4 ".....	18 70
15043	5 ".....	21 60
15044	6 ".....	24 50

STOCK FINISH, POLISHED BRASS.

List No.		Price.
15045	2 Light.....	\$ 6 60
15046	3 ".....	7 90
15047	4 ".....	9 20
15048	5 ".....	10 50
15049	6 ".....	11 80

Finished in Old Brass or Oxidized Copper 10% extra.



List No. 15040.

Length 41 inches, Spread 42 inches



List No. 15045.

Length 38 inches, Spread 36 inches.

Crowfeet and Wiring included. Sockets, Shade Holders and Glassware extra.

ELECTRIC CHANDELIERS.

STOCK FINISH POLISHED BRASS.

Length 32 Inches, Spread 25 Inches.

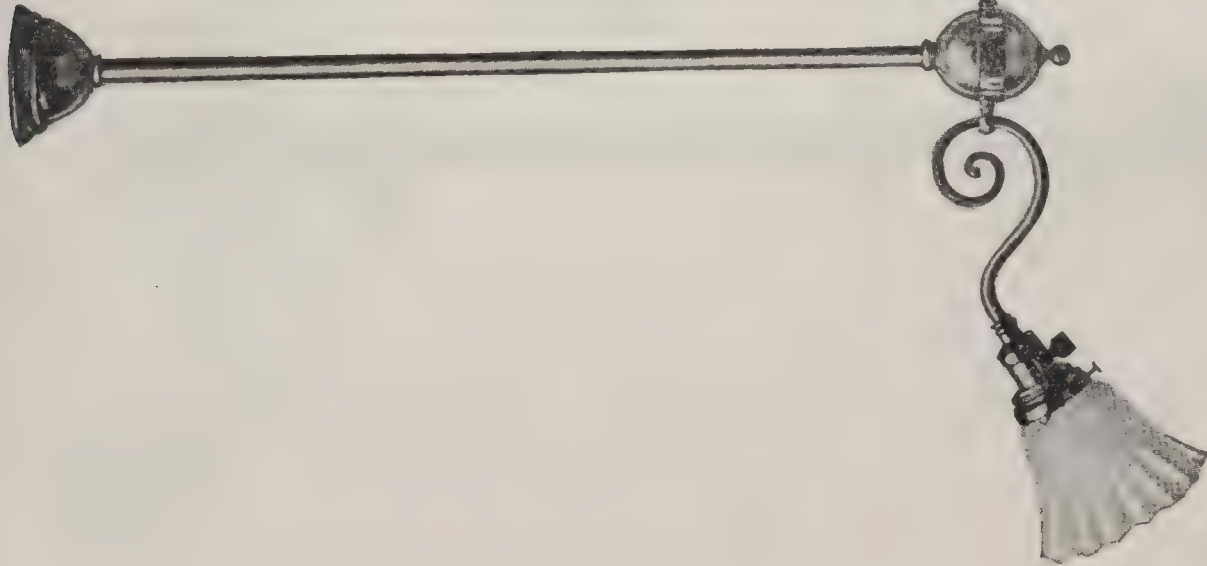
List No.		Price.
15051	2 Lights.....	\$6 90
15052	3 "	8 65
15053	4 "	10 35

STOCK FINISH POLISHED BRASS.

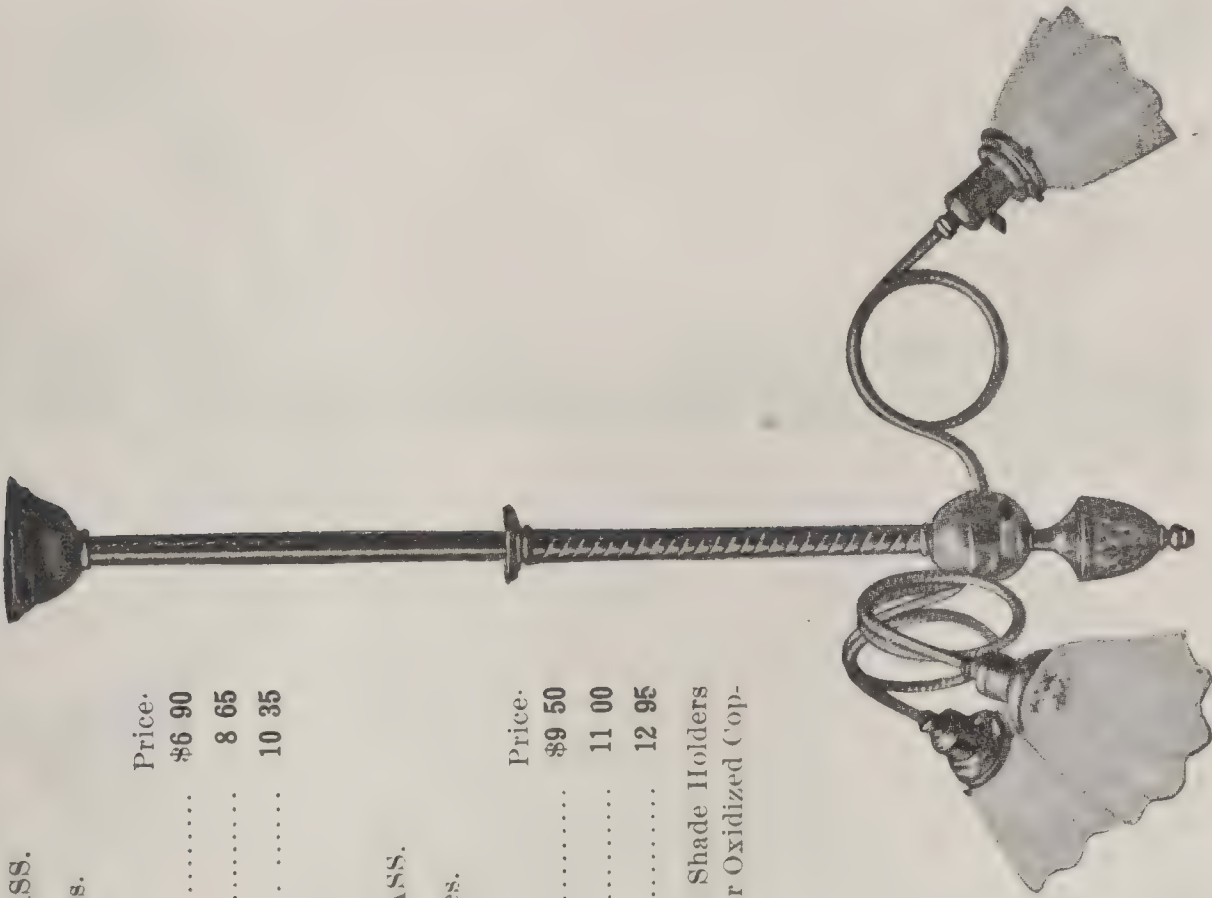
Length 34 Inches, Spread 25 Inches.

List No.		Price.
15054	2 Lights.....	\$9 50
15055	3 "	11 00
15056	4 "	12 95

Crowfeet and Wiring included. Sockets, Shade Holders and Glassware extra. Finished in Old Brass or Oxidized Copper, 10% extra.



List No. 15051.



List No. 15054.

ELECTRIC CHANDELIERS.

STOCK FINISH LIGHT MATT AND GILT.

Length 36 Inches, Spread 14 Inches.

List No.		Price.
15060	2 Light.....	\$ 4 70
15061	3 "	5 70
15062	4 "	6 70

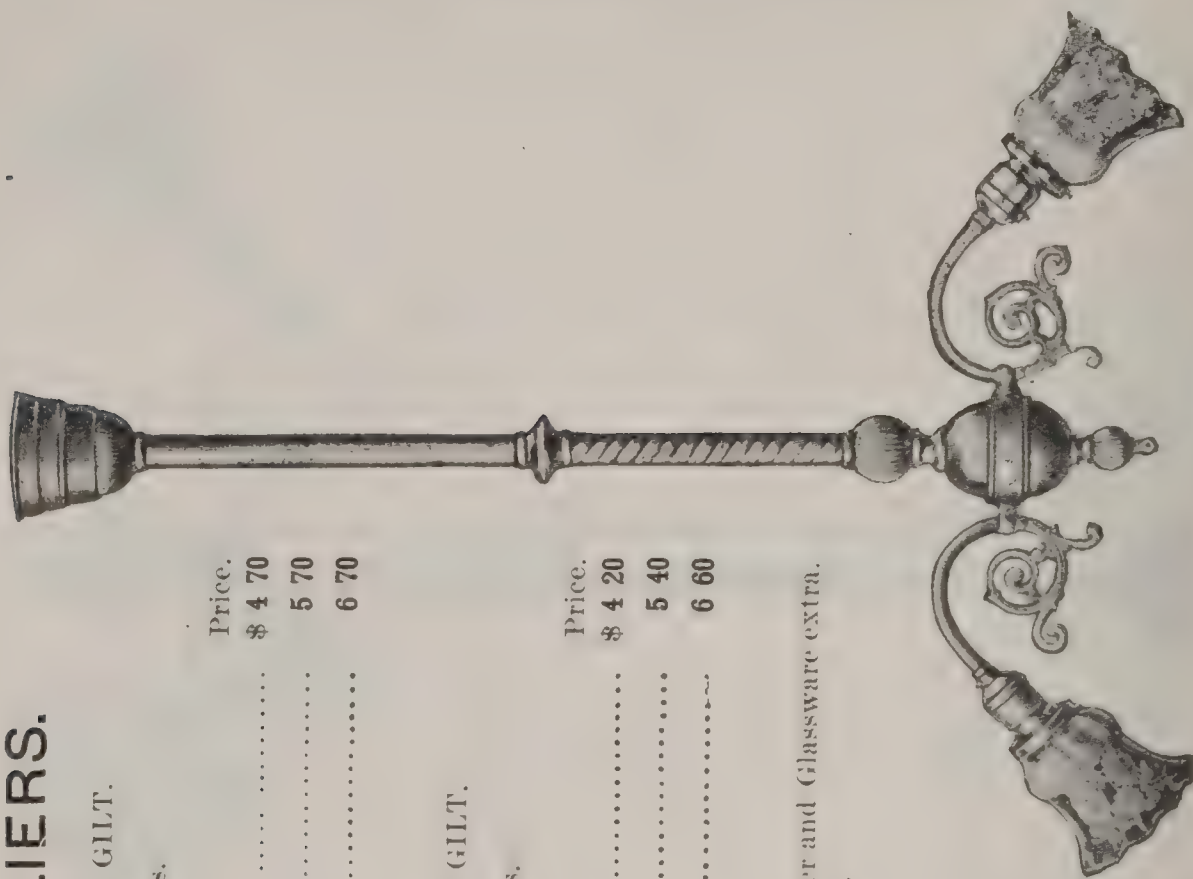


List No. 15060,

STOCK FINISH LIGHT MATT AND GILT.

Length 36 Inches, Spread 15 Inches.

List No.		Price.
15063	2 Light.....	\$ 4 20
15064	3 "	5 40
15065	4 "	6 60



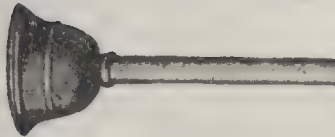
List No. 15063.

Crowfeet and Wiring included. Sockets, Shade Holder and Glassware extra.
Finished in Old Brass or Oxidized Copper 10% extra.

ELECTRIC CHANDELIERS.

STOCK FINISH MATT AND GILT.

Length 36 Inches, Spread 14 Inches.



List No.		Price.
15068	2 Lights.....	\$5 70
15069	3 "	6 80
15070	4 "	7 90
15071	5 "	9 00

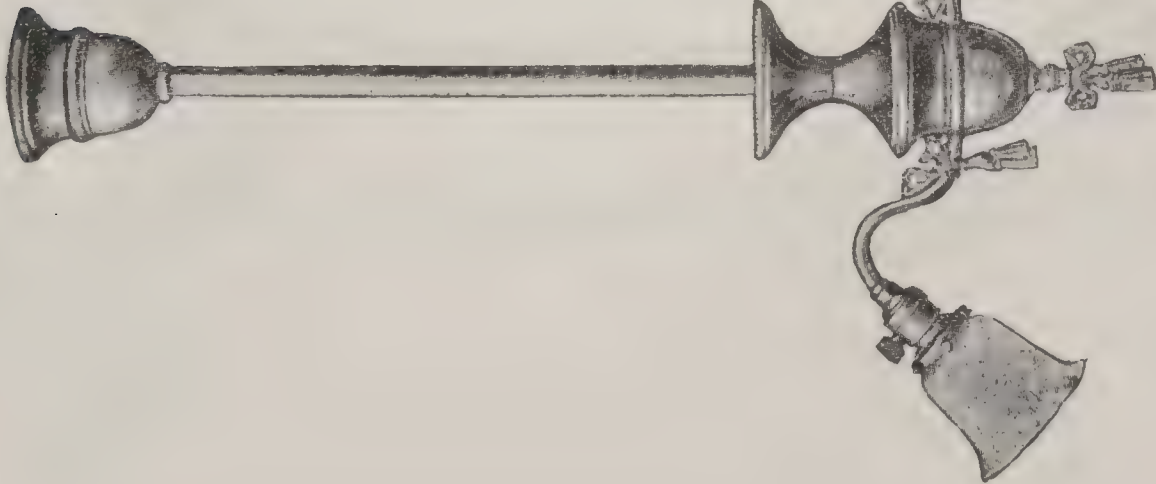
STOCK FINISH RICH GILT.

Length 36 Inches, Spread 13 Inches.

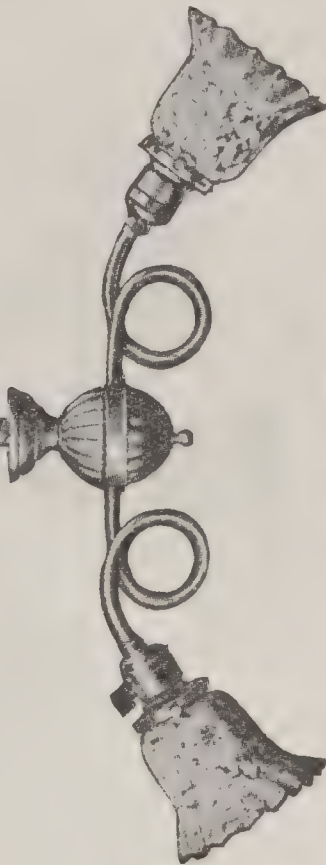
List No.		Price.
15072	2 Lights.....	\$3 00
15073	3 "	3 80
15074	4 "	4 60

Crowfeet and Wiring included. Sockets, Shadeholders and Glassware extra.

Finished in Old Brass or Oxidized Copper 10% extra.



List No. 15068.



List No. 15072.

ELECTRIC CHANDELIERS.

Colonial.

STOCK FINISH OLD BRASS.
Length 38 Inches, Spread 35 Inches.

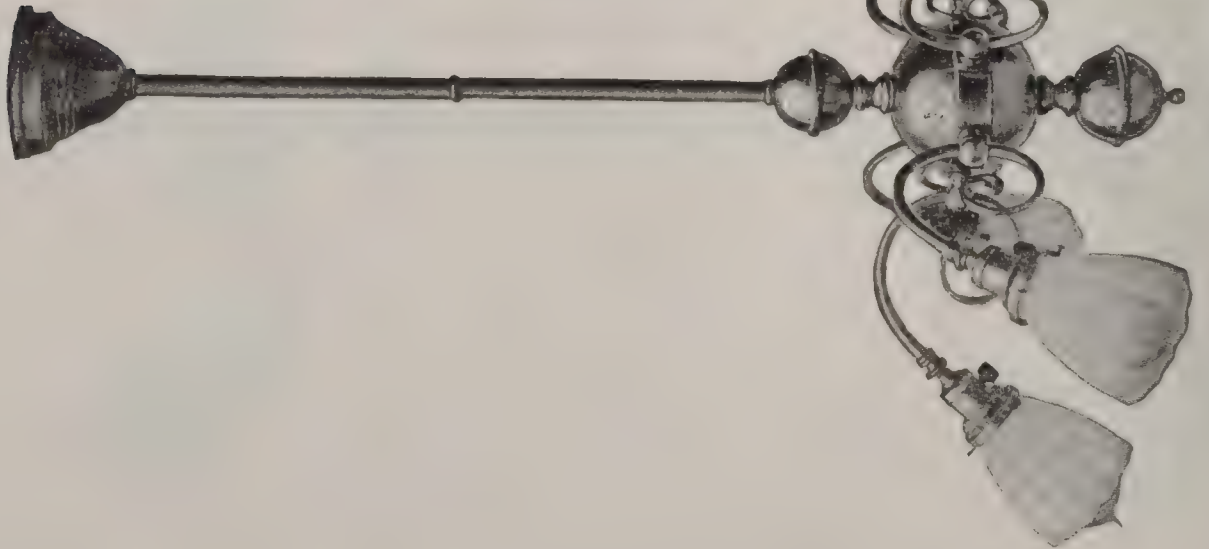
List No.	Lights	Price.
15075	2 Lights	\$14 00
15076	3 "	16 55
15077	4 "	19 10
15078	5 "	21 60
15079	6 "	24 15

Empire.

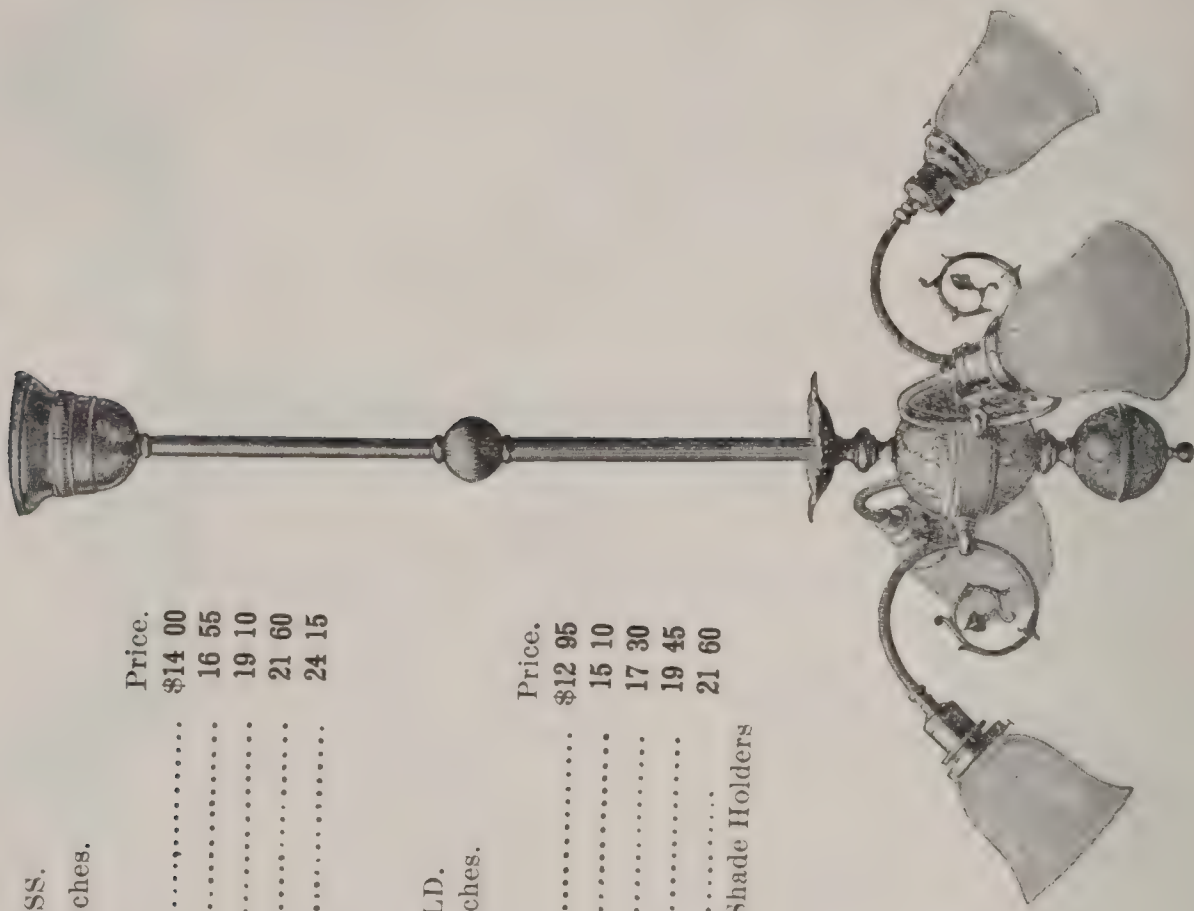
STOCK FINISH SATIN GOLD.
Length 38 Inches, Spread 25 Inches.

List No.	Lights	Price.
15080	2 Lights	\$12 95
15081	3 "	15 10
15082	4 "	17 30
15083	5 "	19 45
15084	6 "	21 60

Crowfeet and Wiring included. Sockets, Shade Holders
and Glassware extra.
Finished in Old Brass or
Oxidized Copper,
10% extra.



List No. 15075.



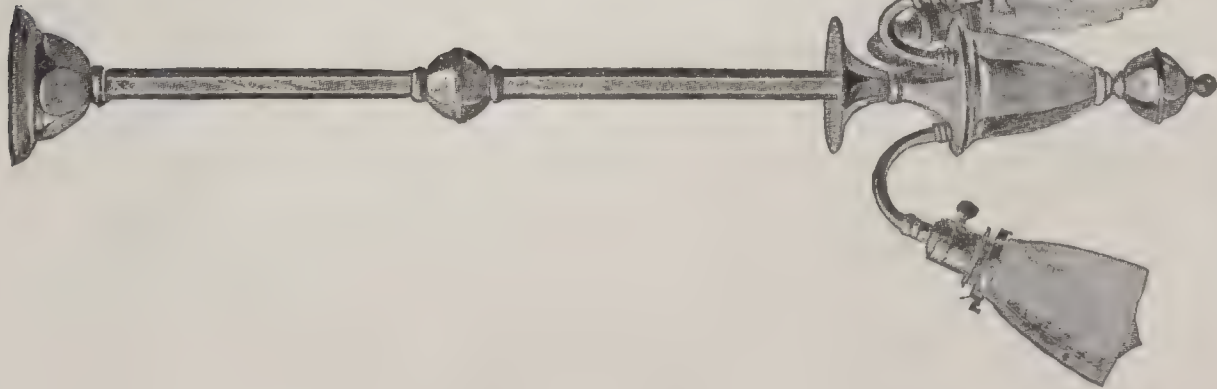
List No 15080

ELECTRIC CHANDELIERS.

STOCK FINISH OLD BRASS.

Length 36 Inches, Spread 14 Inches.

List No.		Price.
15085	2 Lights.....	\$10 80
15086	3 "	12 60
15087	4 "	14 40

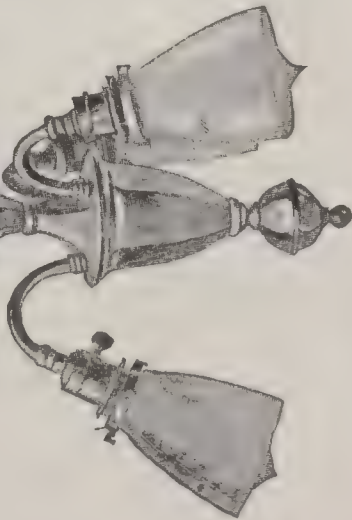


List No. 15085.

STOCK FINISH POLISHED BRASS.

Length 36 Inches, Spread 16 Inches.

List No.		Price.
15088	2 Lights.....	\$12 95
15089	3 "	15 10
15090	4 "	17 30



List No. 15088.

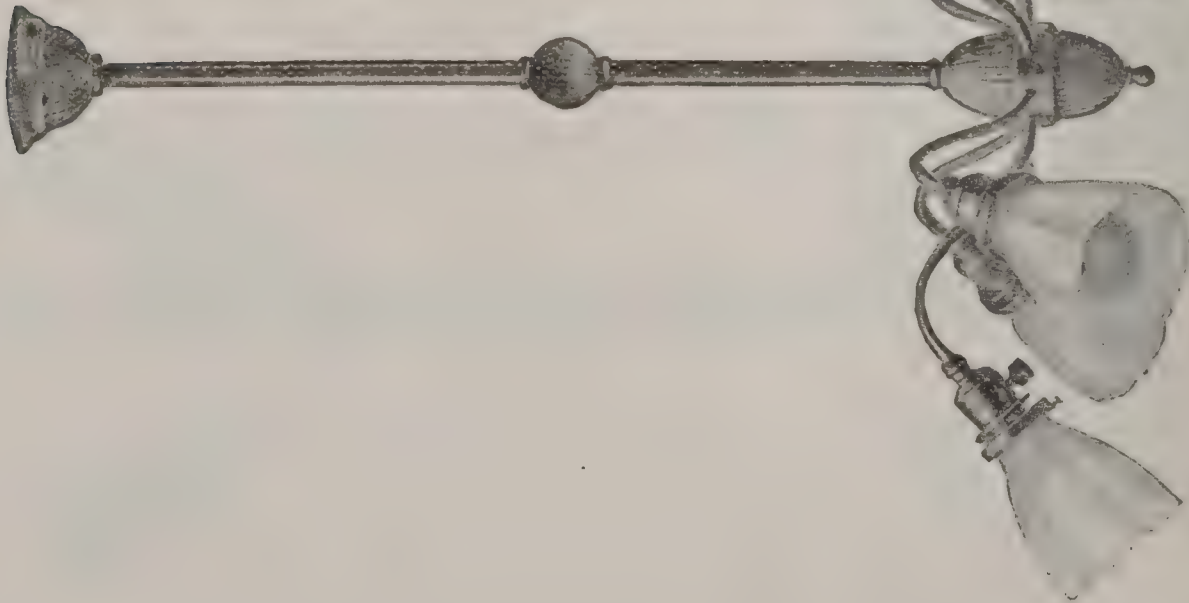
Crowfeet and Wiring included.
Sockets, Shadeholder and Glassware extra.
Finished in Old Brass or Oxidized Copper for 10 % extra.

ELECTRIC CHANDELIERS.

STOCK FINISH POLISHED BRASS.

Length 36 Inches, Spread 24 Inches.

List No.		Price.
15091	2 Lights.....	\$6 10
15092	3 ".....	7 20
15093	4 ".....	8 35
15094	5 ".....	9 50
15095	6 ".....	10 70



List No. 15095.

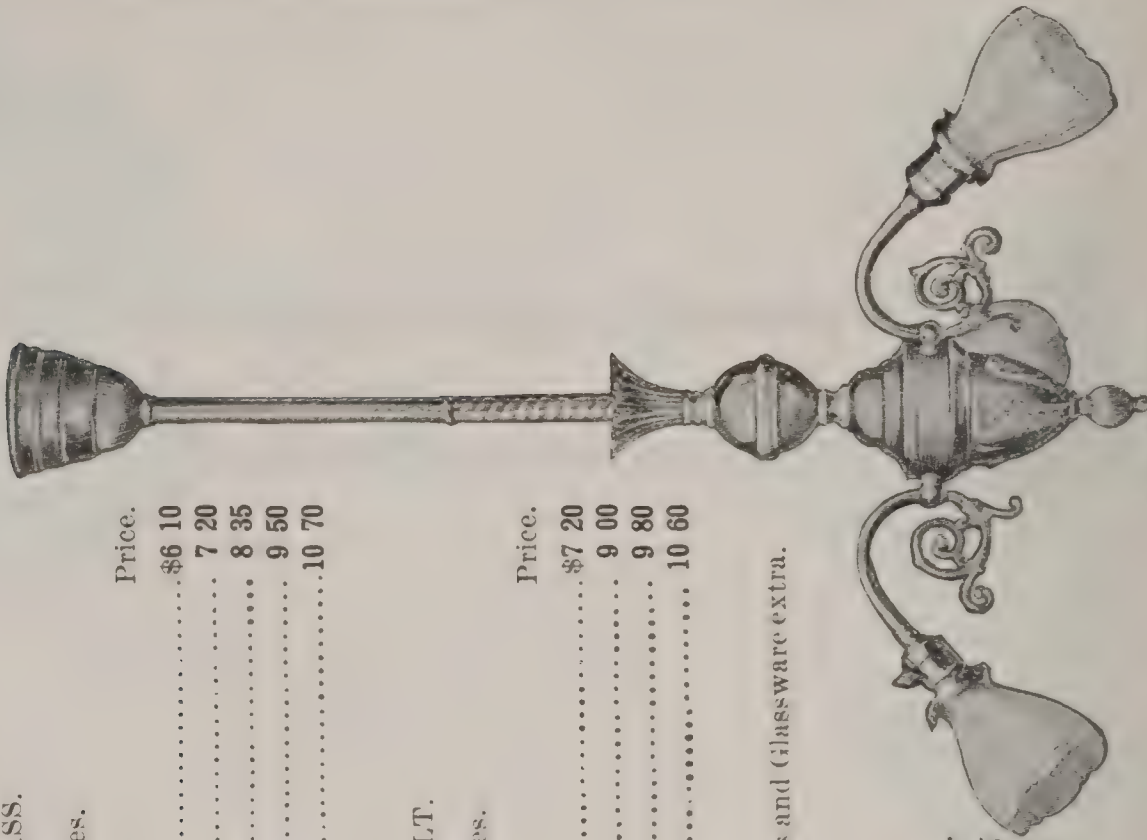
STOCK FINISH MATT AND GILT.

Length 36 Inches, Spread 16 Inches.

List No.		Price.
15096	2 Lights.....	\$7 20
15097	3 ".....	9 00
15098	4 ".....	9 80
15099	5 ".....	10 60

Crowfoot and Wiring included. Sockets, Shadeholders and Glassware extra.

Finished in Old Brass or
Oxidized Copper for 10%
extra.



List No. 15097.

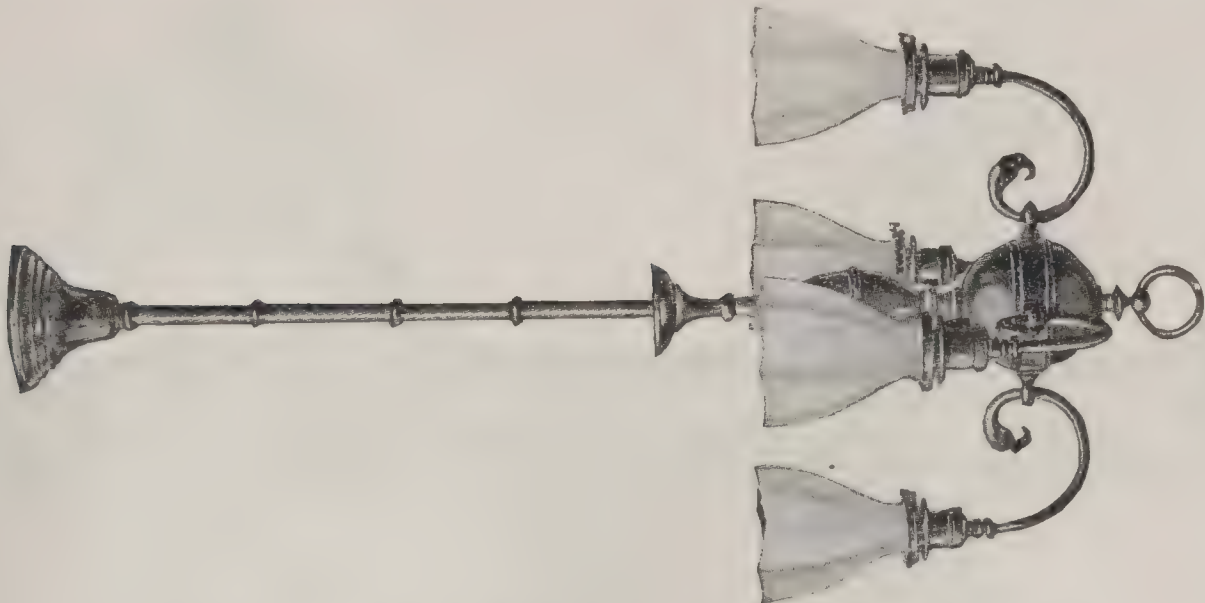
ELECTRIC CHANDELIERS.

Rococo.

STOCK FINISH SATIN GOLD.

Length 34 Inches, Spread 19 Inches.

List No.		Price.
15109	2 Light.....	\$12 95
15110	3 "	16 20
15111	4 "	19 45
15112	5 "	22 70
15113	6 "	25 90

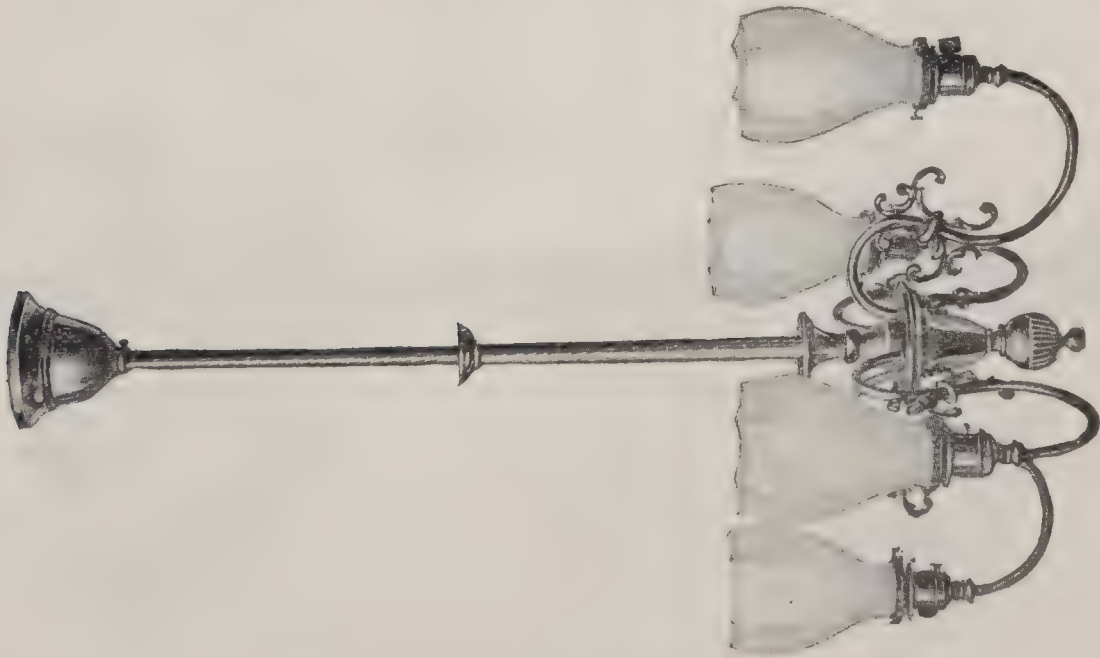


No. 15117.

STOCK FINISH SATIN GOLD.

Length 36 Inches, Spread 14 Inches.

List No.		Price.
15114	2 Light	\$11 50
15115	3 "	13 70
15116	4 "	15 84



No. 15111.

Crowfeet and Wiring included. Sockets, Shade Holders and Glassware extra.
Finished in Old Brass or Oxidized Copper for 10% extra.

ELECTRIC CHANDELIERS.

Colonial.

STOCK FINISH OLD BRASS.

Length 38 Inches, Spread 20 inches.

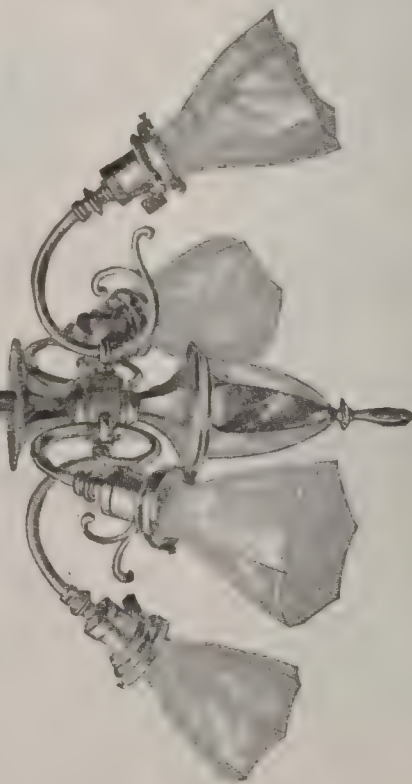
List No.		Price.
15120	2 Light	\$14 40
15121	3 "	16 95
15122	4 "	19 45
15123	5 "	22 00
15124	6 "	24 48



STOCK FINISH SATIN GOLD AND POLISHED BRASS.

Length 36 Inches, Spread 22 inches.

List No.		Price.
15125	2 Light	\$10 50
15126	3 "	12 10
15127	4 "	13 70



Crowfeet and Wiring included. Sockets,
Shade Holders and Glassware, extra.

Finished in Oxidized Copper for 10%
extra.

List No. 15122

List No. 15127

ELECTRIC CHANDELIERS.

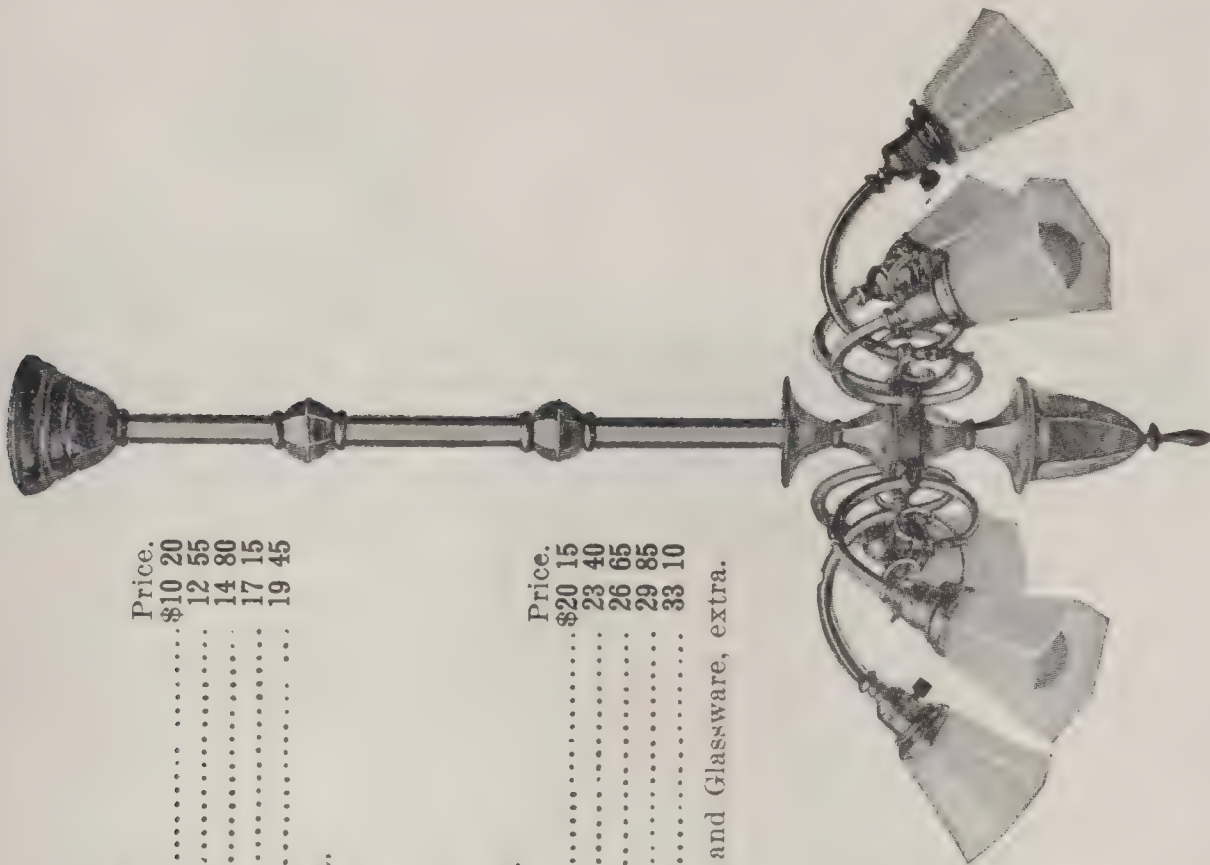
Louis XV.

STOCK FINISH SATIN GOLD.

Length 36 Inches, Spread 20 Inches.

List No.	Light	Price.
15130	2	\$10 20
15131	3	12 55
15132	4	14 80
15133	5	17 15
15134	6	19 45

Finished in Old Brass or Oxidized Copper for 10% extra.



List No 15139

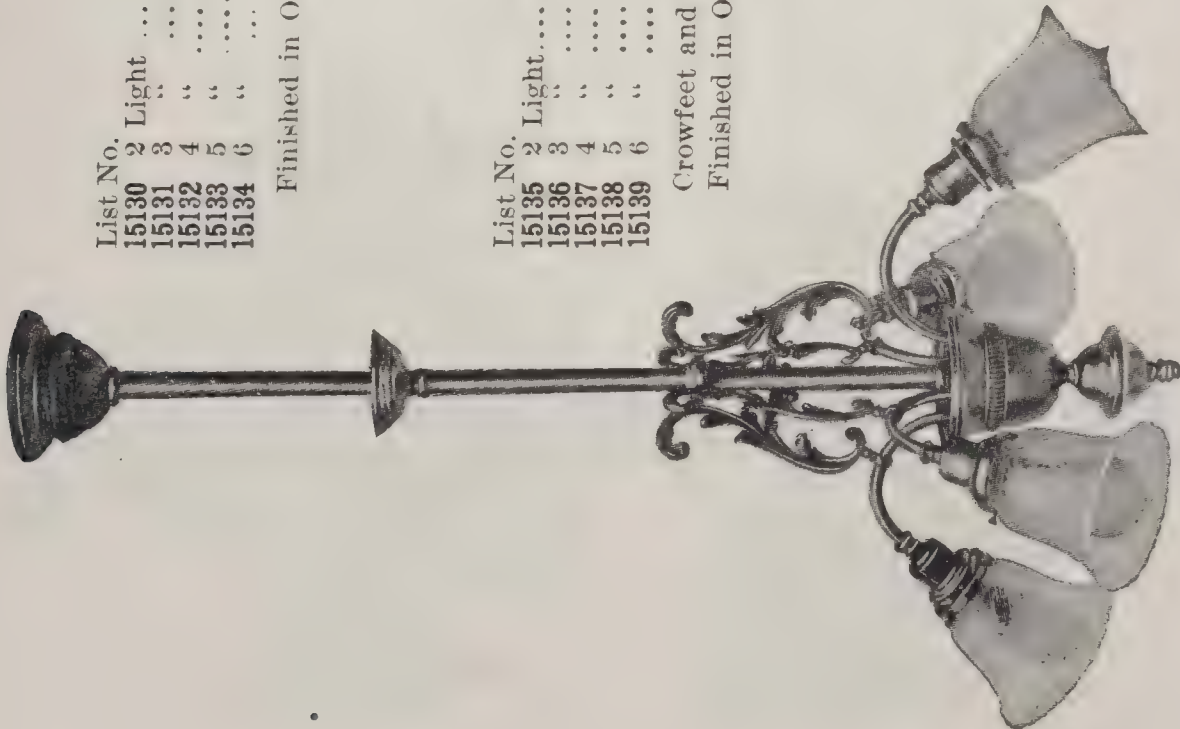
Colonial.

STOCK FINISH OLD BRASS.

Length 42 Inches, Spread 26 Inches.

List No.	Light	Price.
15135	2	\$20 15
15136	3	23 40
15137	4	26 65
15138	5	29 85
15139	6	33 10

Crowfeet and Wiring included. Sockets, Shade Holders and Glassware, extra.
Finished in Oxidized Copper for 10% extra.



List No. 15132

ELECTRIC CHANDELIERS.

Classic.

STOCK FINISH OLD BRASS.

Length 40 Inches, Spread 15 Inches.		Price.
List No.		
15148	2 Light	\$26 65
15149	3 "	31 70
15150	4 "	36 70
15151	5 "	41 75
15152	6 "	46 80



List No. 15152

Flemish.

STOCK FINISH OLD BRASS.

Length 42 Inches, Spread 26 Inches.		Price.
List No.		
15153	2 Light	\$28 10
15154	3 "	34 90
15155	4 "	41 75
15156	5 "	48 60
15157	6 "	55 45



List No. 15156

Crowfeet and Wiring included. Sockets, Shade Holders and Glassware, extra.

Finished in Oxidized Copper for 10% extra.

ELECTRIC BRACKETS.

Colonial.

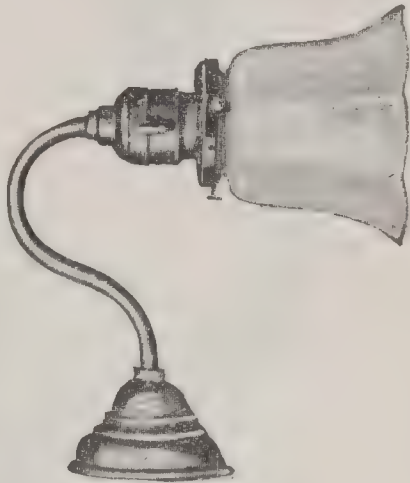
STOCK FINISH OLD BRASS.

List No.	Extends 12 Inches.	Price.
15170	1 Light.....	\$4 30
Finished in Oxidized Copper for 10% extra.		



STOCK FINISH RICH GILT.

List No.	Extends 8 Inches.	Price.
15171	1 Light.....	\$1 50
Finished in Old Brass or Oxidized Copper for 10% extra		



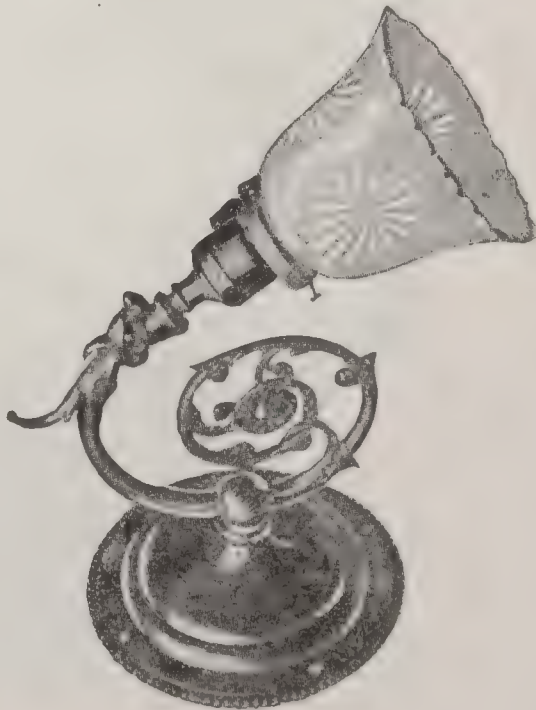
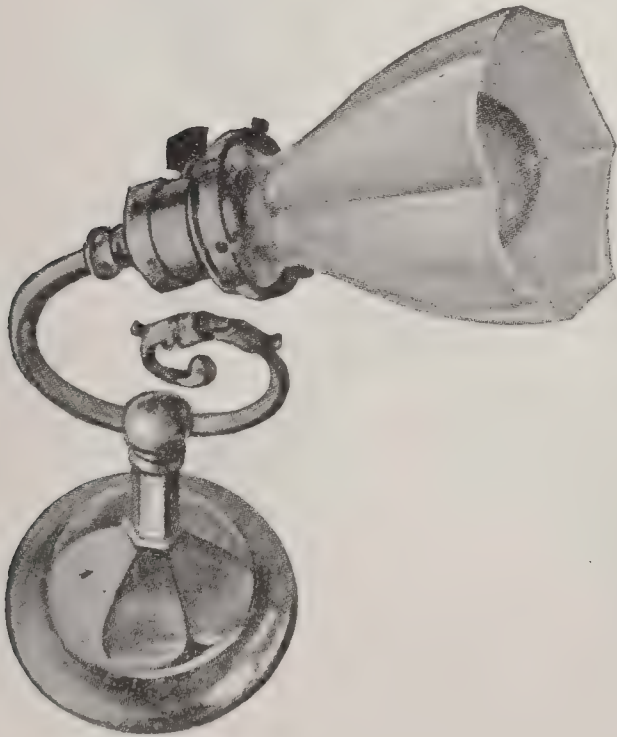
STOCK FINISH POLISHED BRASS.

List No.	Extends 12 Inches.	Price.
15172	1 Light.....	\$8 65
Finished in Old Brass or Oxidized Copper for 10% extra.		

STOCK FINISH RICH GILT.

List No.	Extends 7 Inches.	Price.
15173	1 Light	\$0 55
Finished in Old Brass or Oxidized Copper for 10% extra.		

Crowfeet and Wiring included. Sockets, Shadeholder and Glassware extra.



ELECTRIC BRACKETS.

Colonial.

STOCK FINISH OLD BRASS.

Extends 11 Inches.

List
No.

15174 1 Light..... \$4 30
Finished in Oxidized Copper for 10% extra.

Price.



List No. 15176.

STOCK FINISH RICH GILT.

Extends 9 Inches.

List
No.

15175 1 Light..... \$1 50
Finished in Old Brass or Oxidized
Copper, 10% extra.

Price.

List No. 15174.



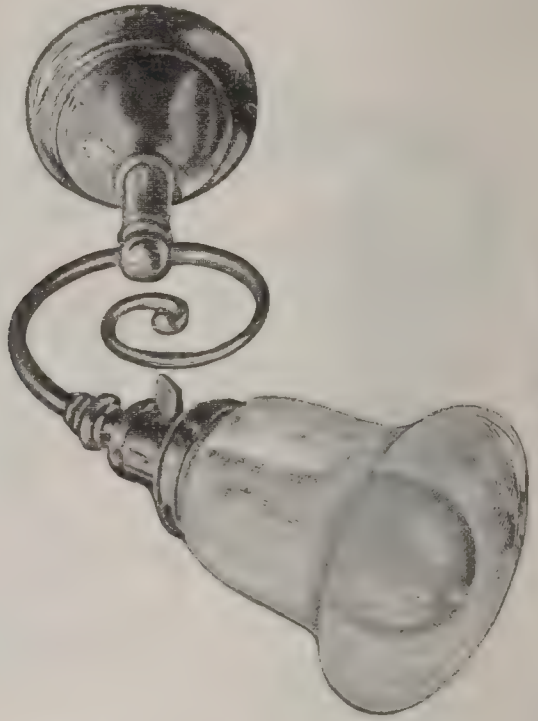
STOCK FINISH RICH GILT.

Extends 7 Inches.

List
No.

15170 1 Light..... \$0 55
Finished in Old Brass or Oxidized
Copper for 10% extra.

Price.



List No. 15177.

STOCK FINISH POLISHED BRASS.

Extends 13 Inches.

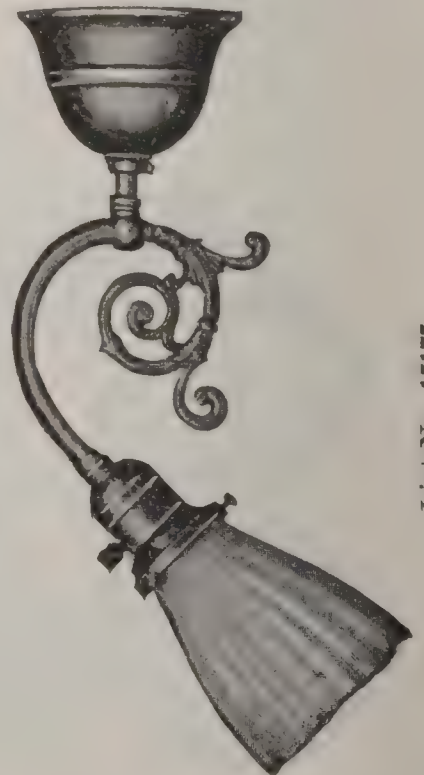
List
No.

15177 1 Light \$3 95
Finished in Old Brass or Oxidized
Copper for 10% extra.

Price.

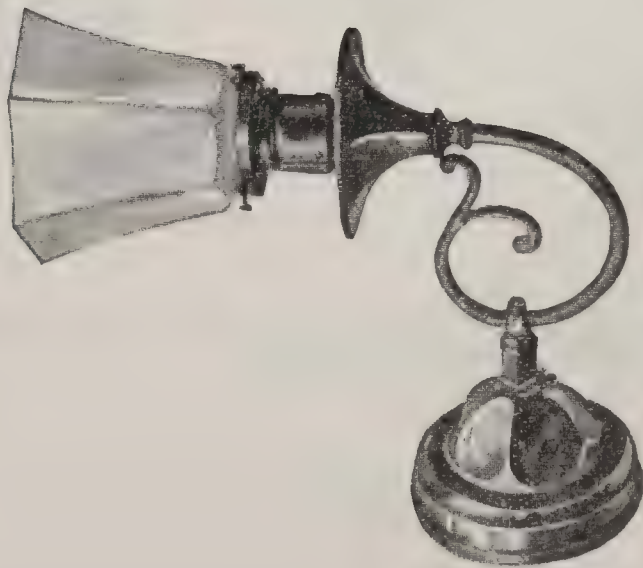
Crowfeet and Wiring included.

Sockets, Shadeholders and Glassware extra.



List No. 15175.

ELECTRIC BRACKETS.



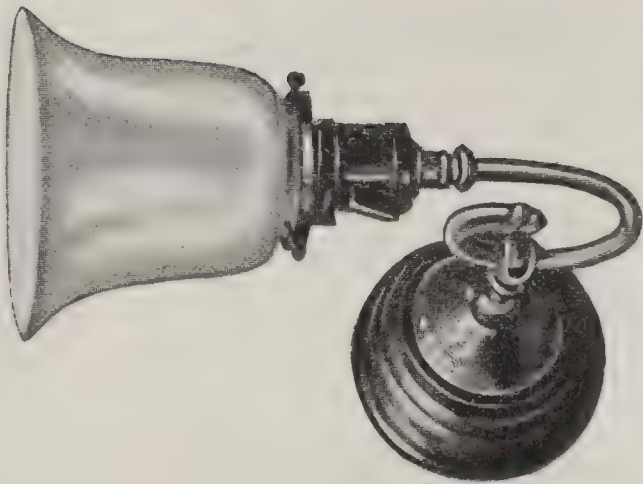
List No. 15178.

STOCK FINISH OLD BRASS.

Extends 8 Inches.

List No.	Price.
15178 1 Light.....	\$5 75
Finished in Oxidized Copper for 10% extra.	

Crowfeet and Wiring included. Sockets, Shadeholders and Glassware extra.

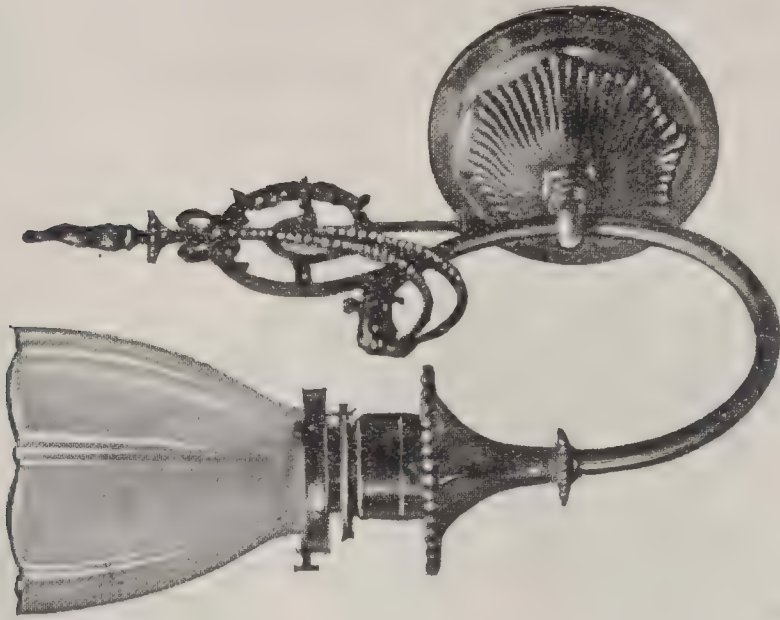


List No. 15179.

STOCK FINISH POLISHED BRASS.

Extends 7 Inches.

List No.	Price.
15179 1 Light.....	\$3 55
Finished in Old Brass or Oxidized Copper for 10% extra.	



List No. 15180.

STOCK FINISH RICH GILT.

Extends 8½ Inches.

List No.	Price.
15180 1 Light.....	\$7 20
Finished in Old Brass or Oxidized Copper for 10% extra.	

ELECTRIC BRACKETS.



STOCK FINISH RICH GILT.
Extends 10 inches, Spread 18 inches.

List No.		Price.
15181	2 Light bracket.....	\$11 15
Finished in Oxidized Copper or Old Brass for 10% extra.		



STOCK FINISH RICH GILT.
Extends 15 inches, Spread 17 inches.

List No.		Price.
15182	2 Light bracket.....	\$11 50
Finished in Oxidized Copper or Old Brass for 10% extra.		

Crowfeet and Wiring included. Sockets, Shade Holders and Glassware extra.

ELECTRIC PENDANTS.

STOCK FINISH RICH GILT.
Length, 30 Inches.

List No. 15184 1 Light..... Price. \$ 2 95

STOCK FINISH MATT AND GILT.
Length, 30 Inches.

List No. 15185 1 Light..... Price. \$ 3 00

STOCK FINISH RICH GILT.
Length, 30 Inches.

List No. 15186 1 Light..... Price. \$ 2 30

STOCK FINISH POLISHED BRASS.
Length, 36 Inches.

List No. 15187 1 Light..... Price. \$ 4 30

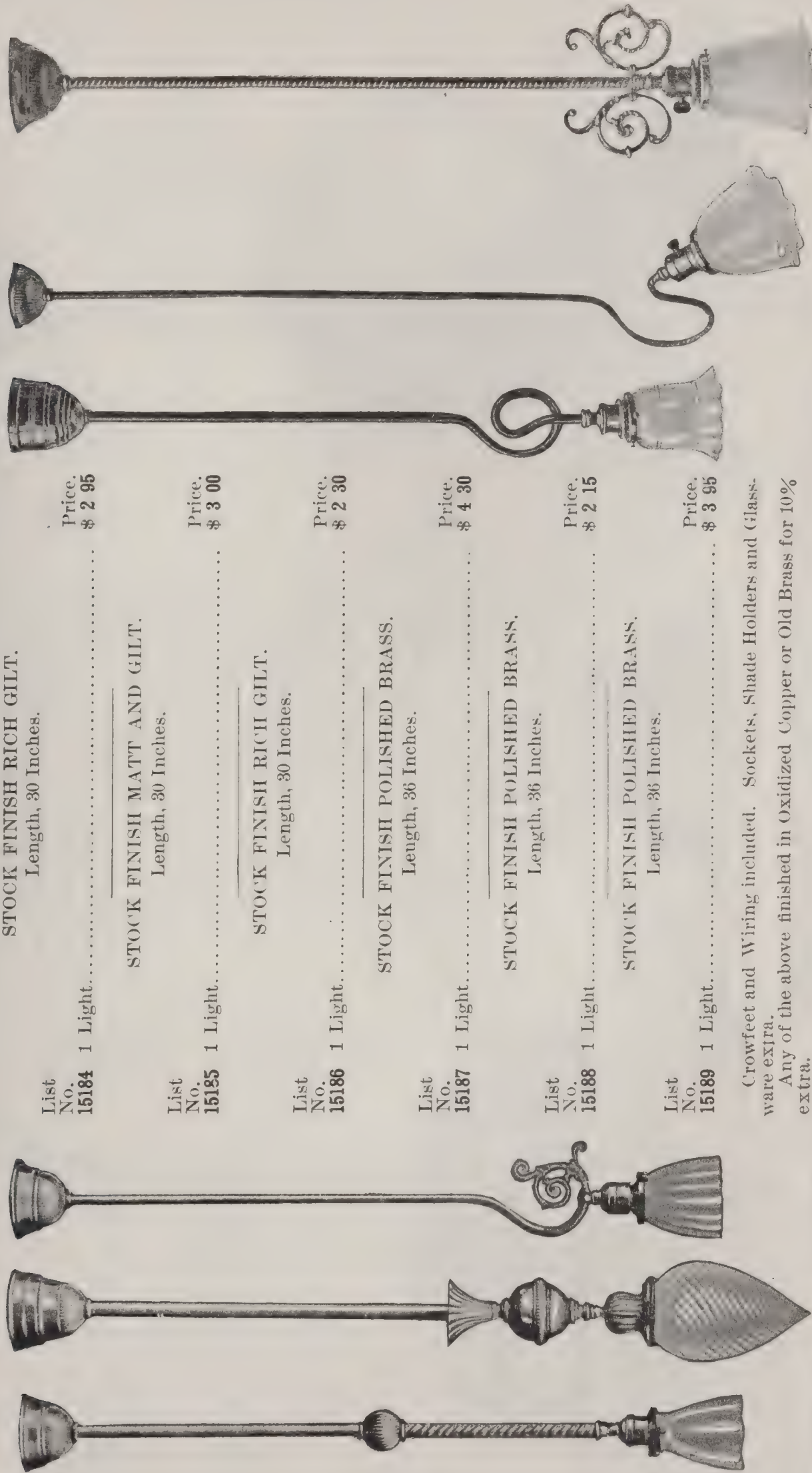
STOCK FINISH POLISHED BRASS.
Length, 36 Inches.

List No. 15188 1 Light..... Price. \$ 2 15

STOCK FINISH POLISHED BRASS.
Length, 36 Inches.

List No. 15189 1 Light..... Price. \$ 3 95

Crowfeet and Wiring included. Sockets, Shade Holders and Glass-ware extra.
Any of the above finished in Oxidized Copper or Old Brass for 10% extra.



No. 15184. No. 15185. No. 15186.

No. 15187.

No. 15188.

No. 15189.

ELECTRIC CEILING LIGHTS.



List No. 6262.

STOCK FINISH POLISHED BRASS.

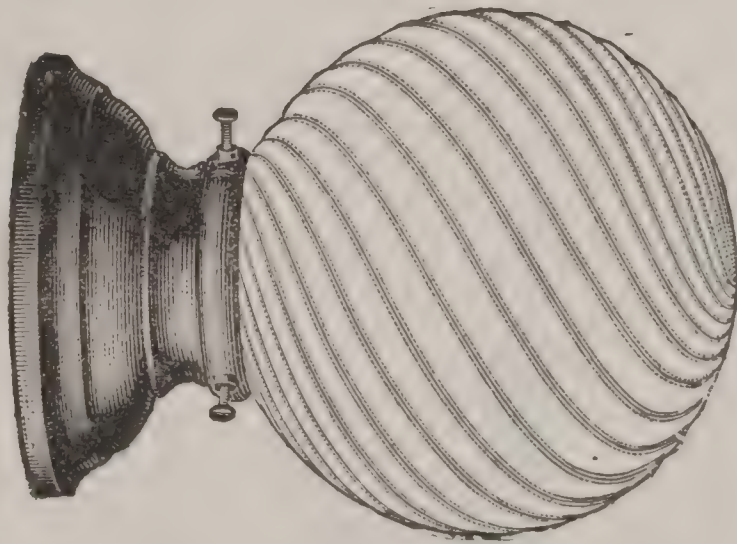
Furnished complete with attachments for sockets, and with opalescent or ground glass disc.

In Diameter 10 to 14 Inches.

List No.		Price.
6262	1 Light, 10 inch Disc.....	\$10 00
6263	2 " 10 " "	11 00
6264	3 " 12 " "	14 50
6265	6 " 14 " "	22 00

Finished in Oxidized Copper or Old Brass for 10% extra.

Sockets and Lamps are extra.

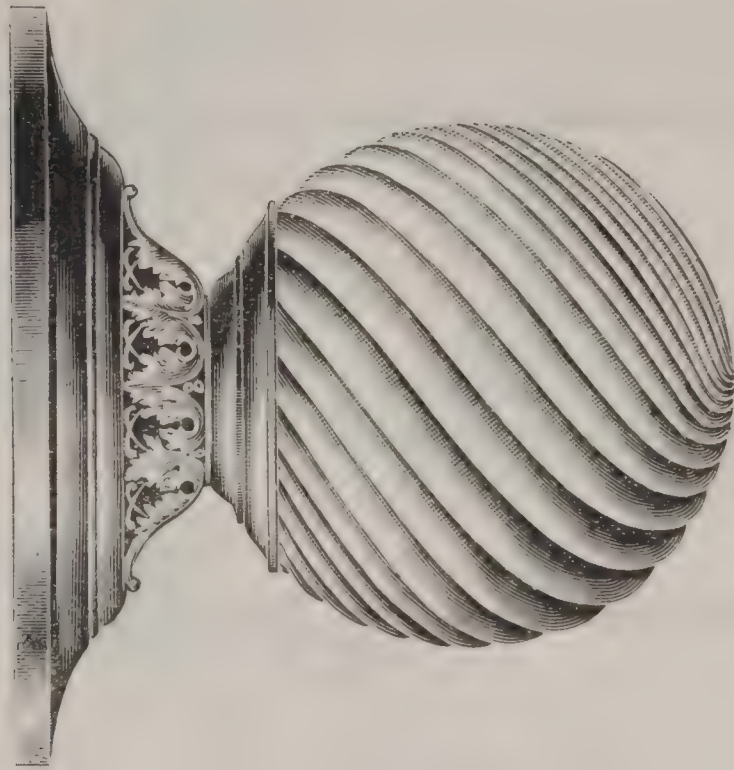


List No. 6266.

STOCK FINISH POLISHED BRASS.

With 6 Inch Ball Globe.

List No.	Price.
6266 Complete.....	\$4 00
6267 Holder only.....	3 00
6268 Globe only.....	1 00



List No. 15193.

STOCK FINISH POLISHED BRASS.

With 6 Inch Ball Globe.

List No.	Price.
15192 Complete.....	\$5 00
15193 Holder only.....	3 00
15194 Globe only.....	2 00

COMBINATION CHANDELIERS.

STOCK FINISH BRUSH BRASS.

Length 36 Inches, Spread 20 Inches.

List No.	4 Light	2 Gas	2 Electric	Price.
15195				\$13 30
15196	6 "	3 "	3 "	16 80
15197	8 "	4 "	4 "	20 00

STOCK FINISH MATT AND GILT.

Length 36 Inches, Spread 21 Inches.

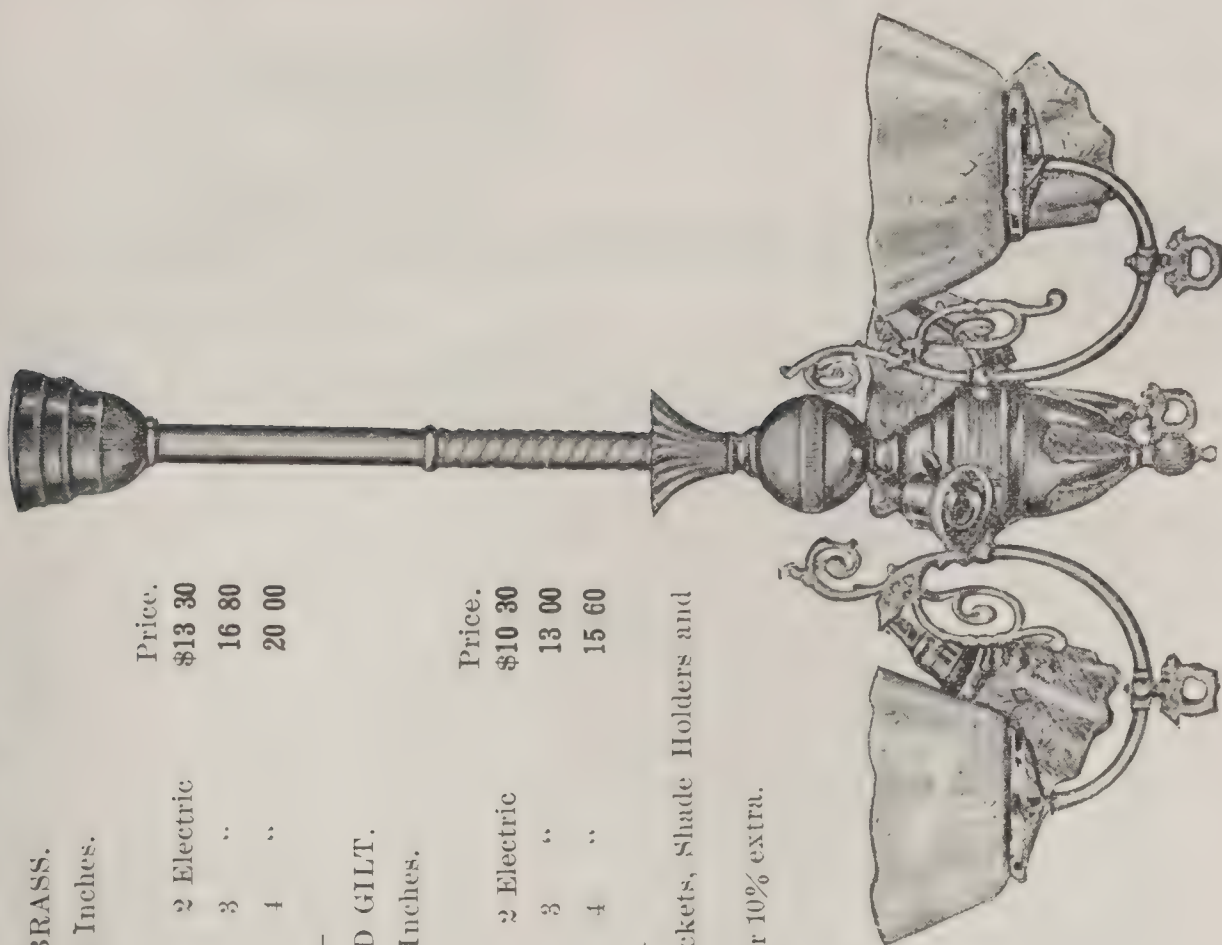
List No.	4 Light	2 Gas	2 Electric	Price.
15198				\$10 30
15199	6 "	3 "	3 "	13 00
15200	8 "	4 "	4 "	15 60

Insulating Joints and Wiring included. Sockets, Shade Holders and Glassware extra.

Finished in Old Brass or Oxidized Copper for 10% extra.



List No. 15196.



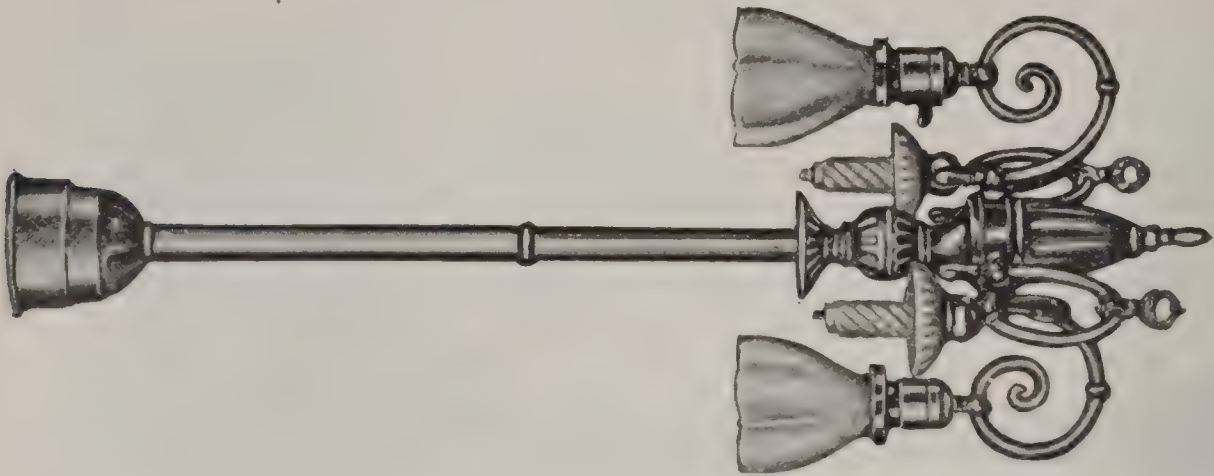
List No. 15199.

COMBINATION CHANDELIERS.

STOCK FINISH, RICH GILT.

Length, 36 inches. Spread 11 inches.

List No.		Price.
15201	2 Light, 1 Gas, 1 Electric	\$6 50

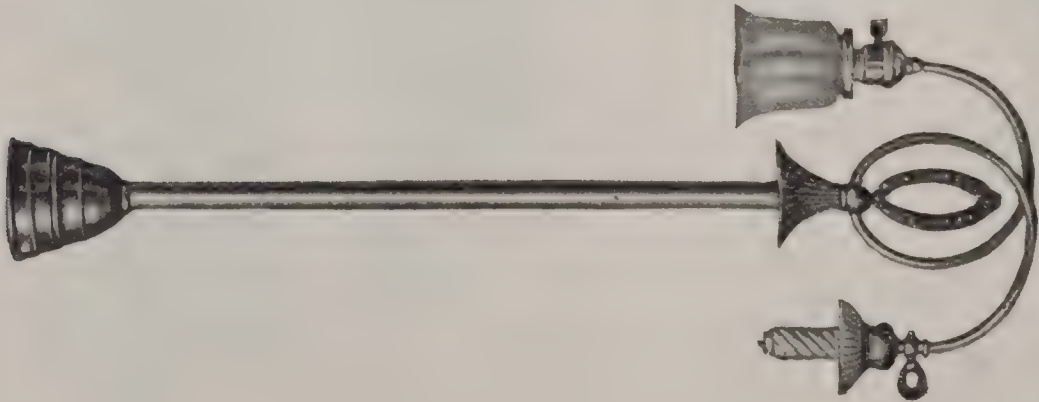


List No. 15202

STOCK FINISH, MATT AND GILT.

Length, 36 inches. Spread, 14 inches.

List No.		Price.
15202	4 Light, 2 Gas, 2 Electric	\$12 20
15203	6 " 3 " 3 "	15 80



List No. 15201

Insulating Joints, Wiring, Imitation Candles and Bobeches, included. Sockets, Shade Holders and Shades, extra.

Finished in Oxidized Copper or old Brass for 10% Extra.

COMBINATION CHANDELIERS.

STOCK FINISH RICH GILT.

Length 36 Inches, Spread 20 Inches.

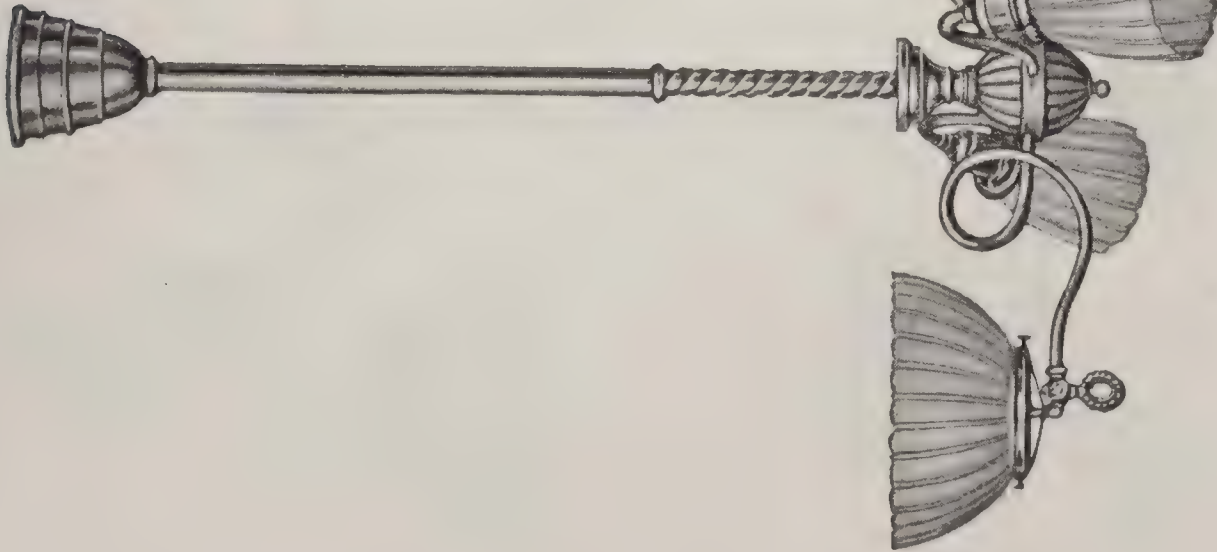
List No.		Price.
15204	4 Lights, 2 Gas, 2 Electric.....	\$5 80
15205	6 " 3 " 3 "	7 70

STOCK FINISH RICH GILT.

Length 36 Inches, Spread 21 Inches.

List No.		Price.
15206	4 Lights, 2 Gas, 2 Electric.....	\$12 95
15207	6 " 3 " 3 "	16 95
15208	8 " 4 " 4 "	20 90

Insulating Joint and Wiring included. Key Sockets, Shade Holders and Glassware extra.
Finished in Oxidized Copper or Old Brass for 10% extra.



List No. 15204.



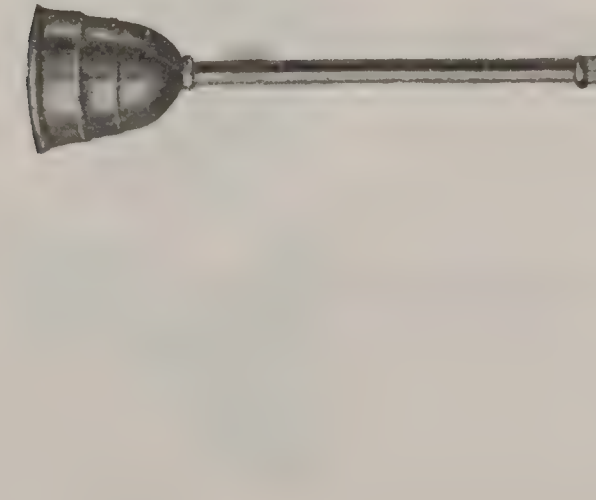
List No. 15208.

COMBINATION CHANDELIERS.

STOCK FINISH POLISHED BRASS.

Length 31 Inches, Spread 15 Inches.

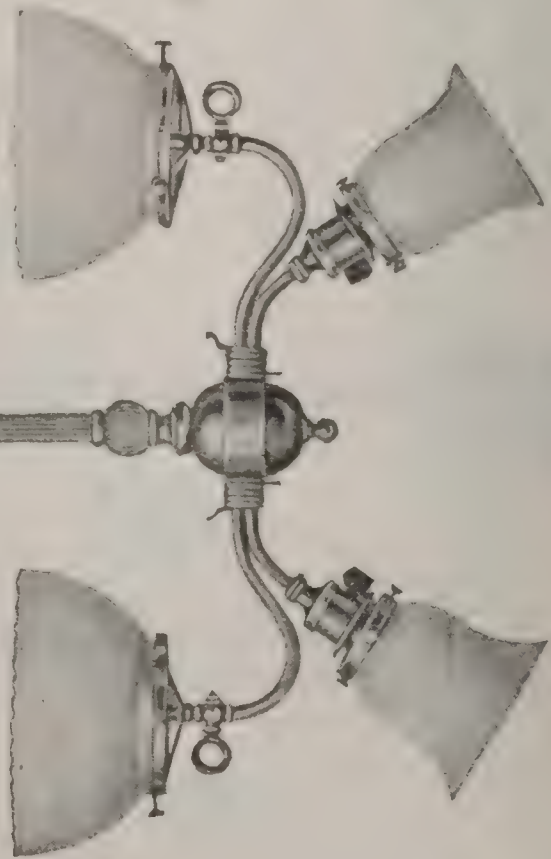
List No.		Price.
15209	4 Lights, 2 Gas, 2 Electric.....	\$ 9 35
15210	6 " 3 " 3 "	11 90
15211	8 " 4 " 4 "	14 40



STOCK FINISH MATT AND GILT.

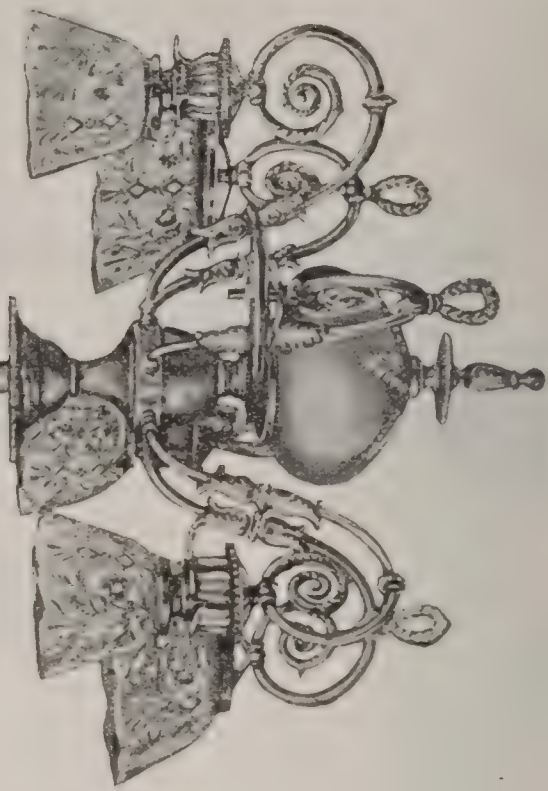
Length 36 Inches, Spread 21 Inches.

List No.		Price.
15212	6 Lights, 3 Gas, 3 Electric.....	\$39 00



List No. 15209.

Insulating Joint and Wiring included Sockets and Shadeholders extra.



List No. 15212.

Finished in Oxidized Copper or Old Brass for 10% extra.

COMBINATION CHANDELIERS.

STOCK FINISH RICH GILT.

Length 36 Inches, Spread 36 Inches.

List No.		Price.
15213	4 Lights, 2 Gas, 2 Electric.....	\$5 25
15214	8 " 4 " 4 "	9 70

Pendants.

STOCK FINISH RICH GILT.

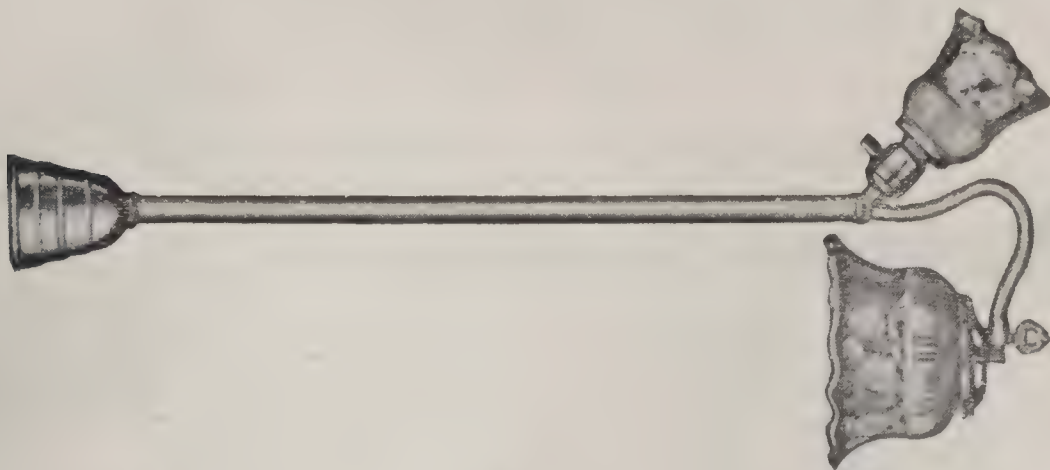
Length 36 Inches.

List No.		Price.
15215	2 Lights, 1 Gas, 1 Electric....	\$2 40

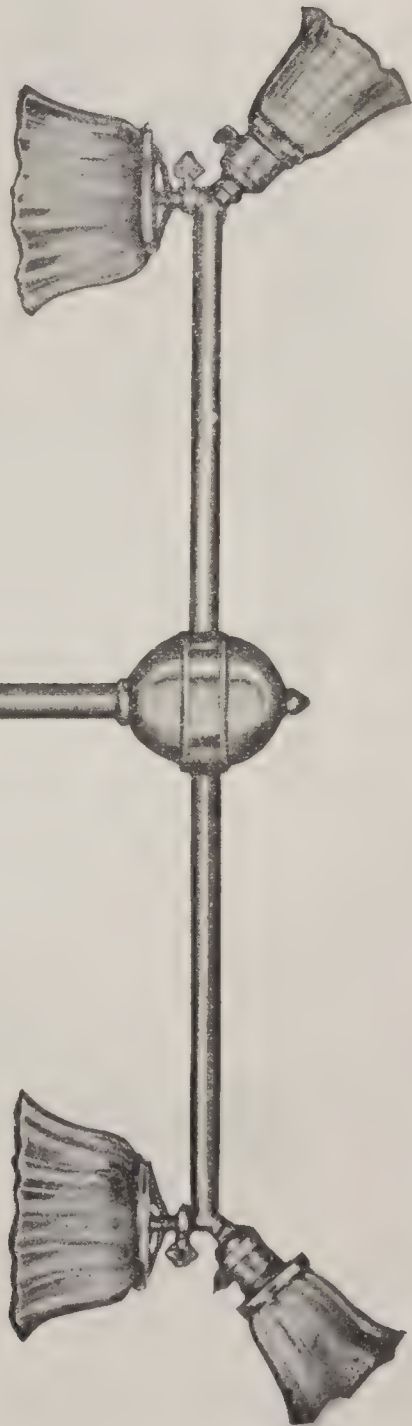
Insulating Joint and Wiring included.

Sockets, Shade Holders and Glassware extra.

Finished in Old Brass or Oxidized Copper for 10% extra.



List No. 15215.



List No. 15213.

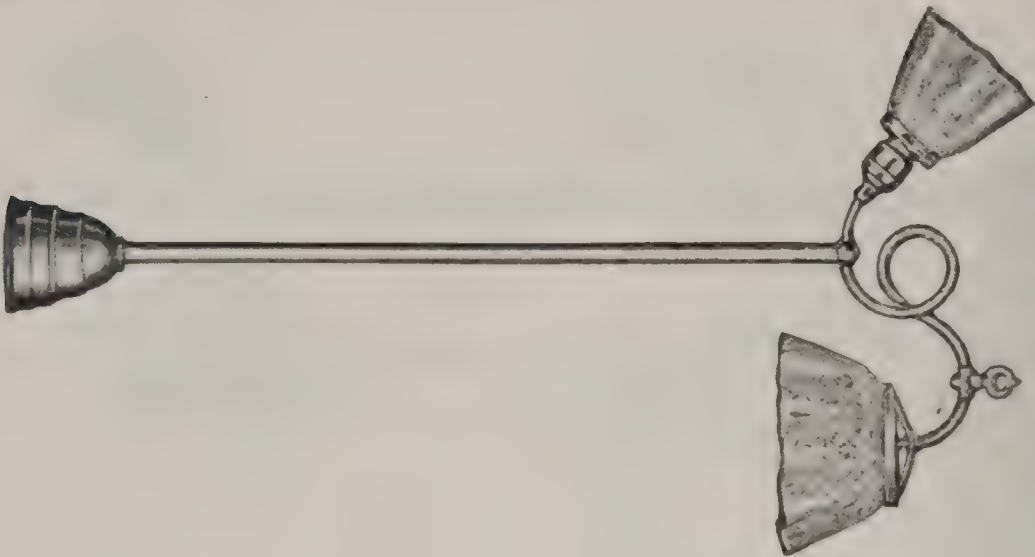
COMBINATION CHANDELIERS.

Pendants.

STOCK FINISH RICH GILT.

Length, 36 Inches.

List No.		Price.
15216	2 Lights, 1 Gas, 1 Electric.....	\$2 58



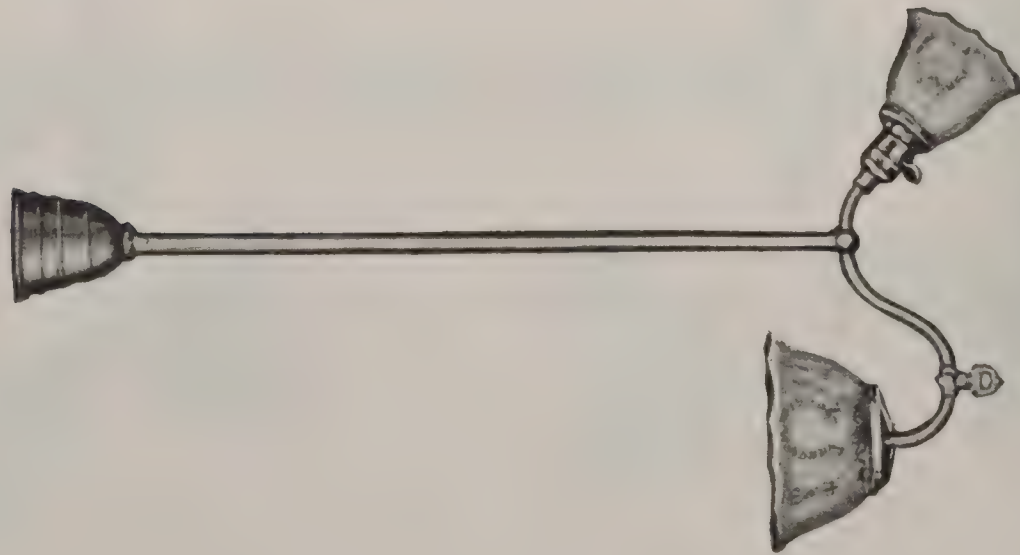
List No. 15217.

Pendants.

STOCK FINISH RICH GILT

Length, 36 Inches.

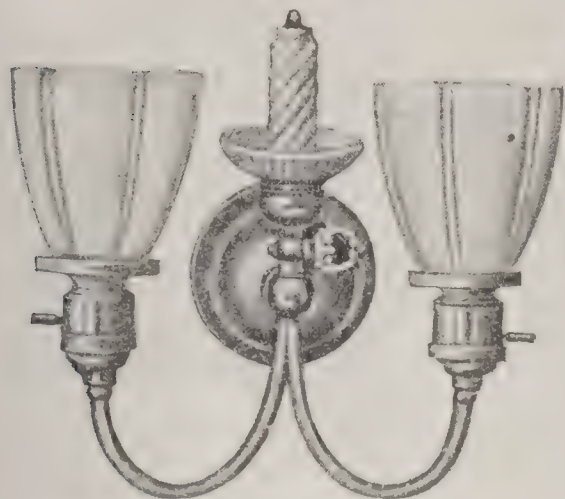
List No.		Price.
15217	2 Lights, 1 Gas, 1 Electric.....	\$2 70



List No. 15216.

Insulating Joints and Wiring included.
Sockets, Shade Holders and Glassware extra.
Finished in Old Brass or Oxidized Copper for 10% extra.

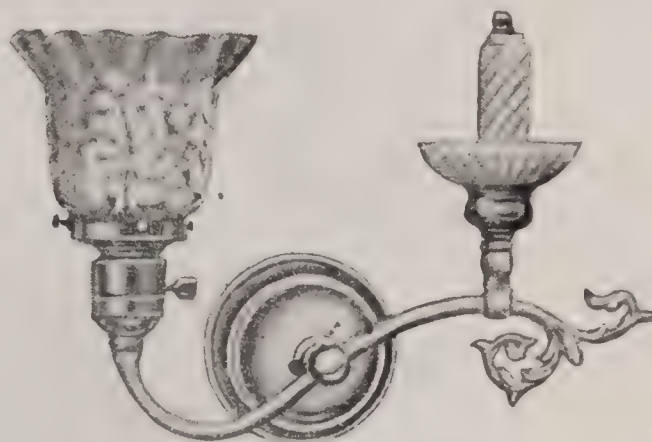
COMBINATION BRACKETS.



STOCK FINISH GILT.

Extends 8 Inches, Spread 8 Inches.

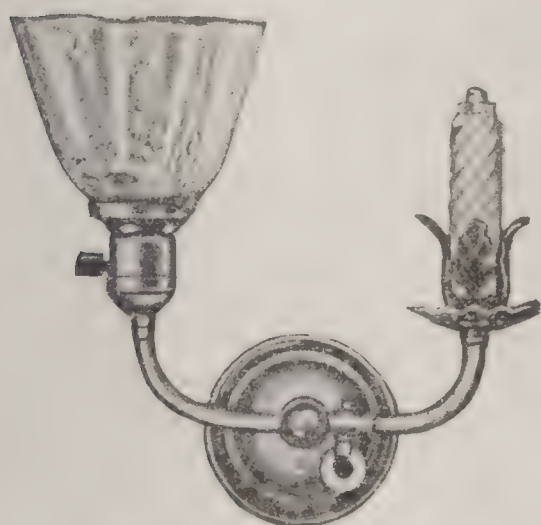
List No.	1 Gas, 2 Electric.	Price.
15220	Bracket.....	\$3 70



STOCK FINISH GILT.

Extends 5 Inches, Spread 8 Inches.

List No.	1 Gas, 1 Electric.	Price.
15221	Bracket	\$3 10



STOCK FINISH GILT.

Extends 5 Inches, Spread 7 Inches.

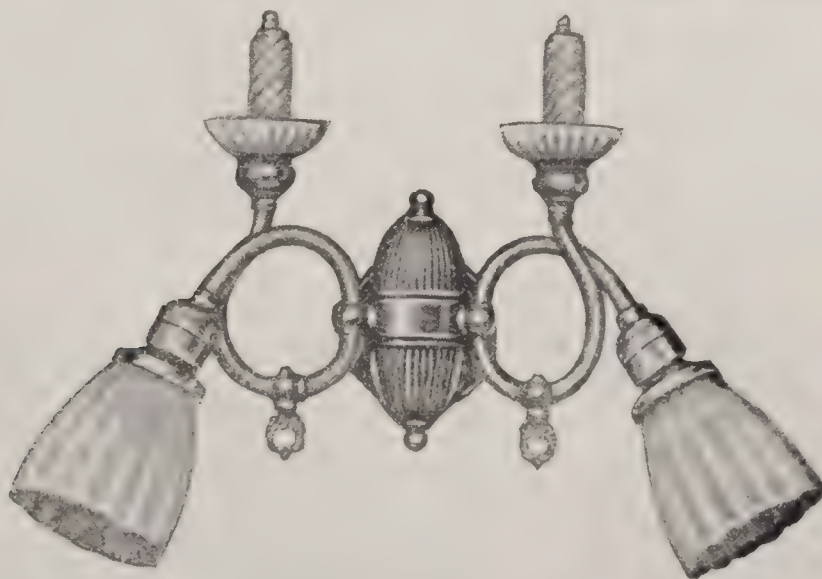
List No.	1 Gas, 1 Electric.	Price.
15222	Bracket.....	\$2 40



STOCK FINISH GILT.

Extends 5 Inches, Spread 8 Inches.

List No.	1 Gas, 1 Electric.	Price.
15223	Bracket.....	\$2 50



STOCK FINISH GILT.

Extends 9 Inches, Spreads 12 Inches.

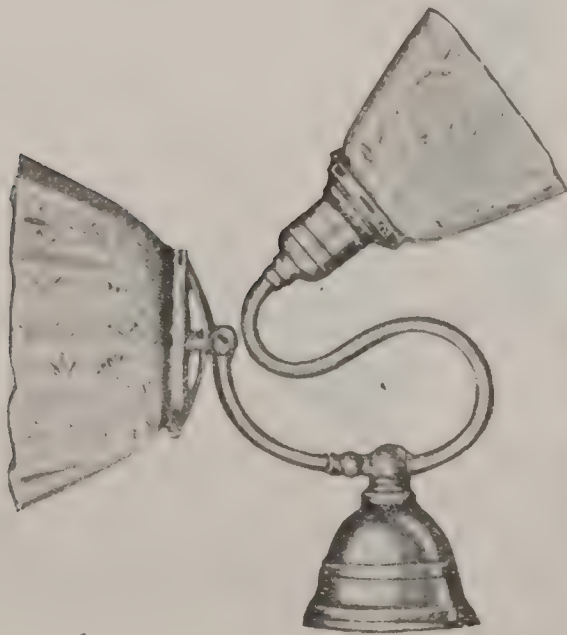
2 Gas, 2 Electric.

List No.	Price.
15224	Bracket.....\$7 70

Wiring, Insulating Joints, Imitation Candles and Bobeches included, Sockets, Shade Holders and Shades extra.

Finished in Old Brass or Oxidized Copper for 10% extra.

COMBINATION BRACKETS.

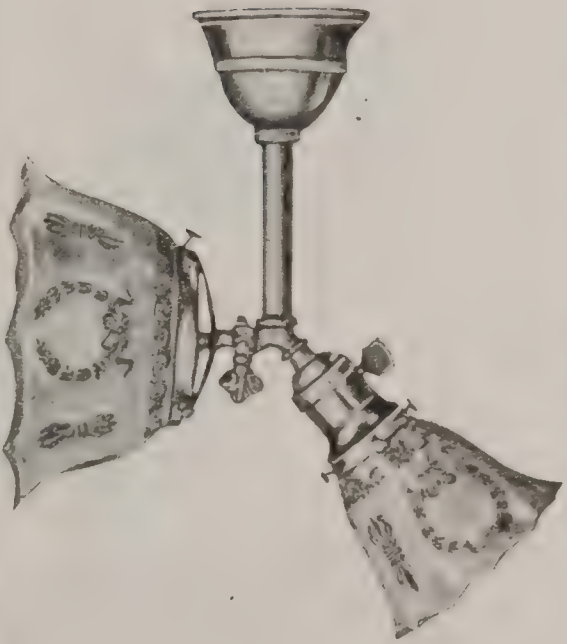


STOCK FINISH RICH GILT.

Extends 8 Inches.

List No. 15225 2 Lights, 1 Gas, 1 Electric.....\$2 70

Price:

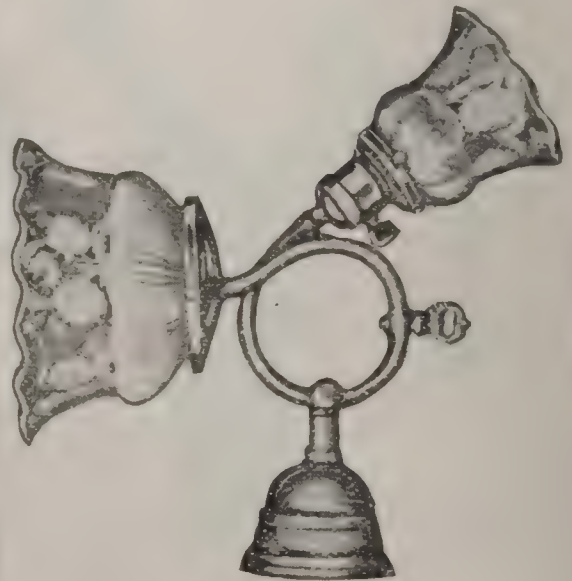


STOCK FINISH RICH GILT.

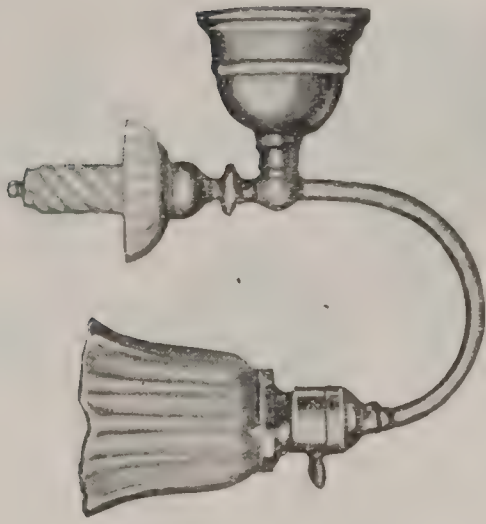
Extends 6 Inches.

List No. 15226 2 Lights, 1 Gas, 1 Electric.....\$0 95

Price:



List No. 15228.

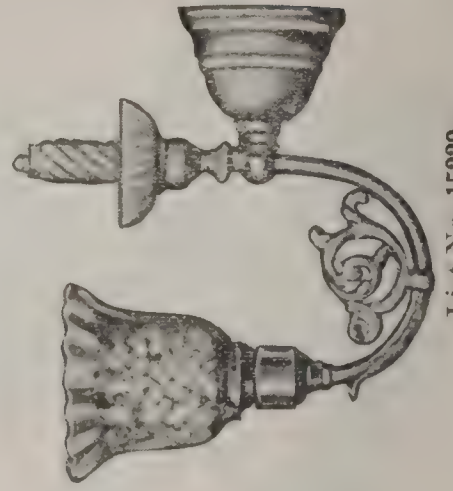


STOCK FINISH RICH GILT.

Extends 9 Inches.

List No. 15227 2 Lights, 1 Gas, 1 Electric.....\$2 40

Price:



List No. 15229.

STOCK FINISH RICH GILT.

Extends 9 Inches.

List No. 15223 2 Lights, 1 Gas, 1 Electric.....\$2 30

Price:

STOCK FINISH RICH GILT.

Extends 9 Inches.

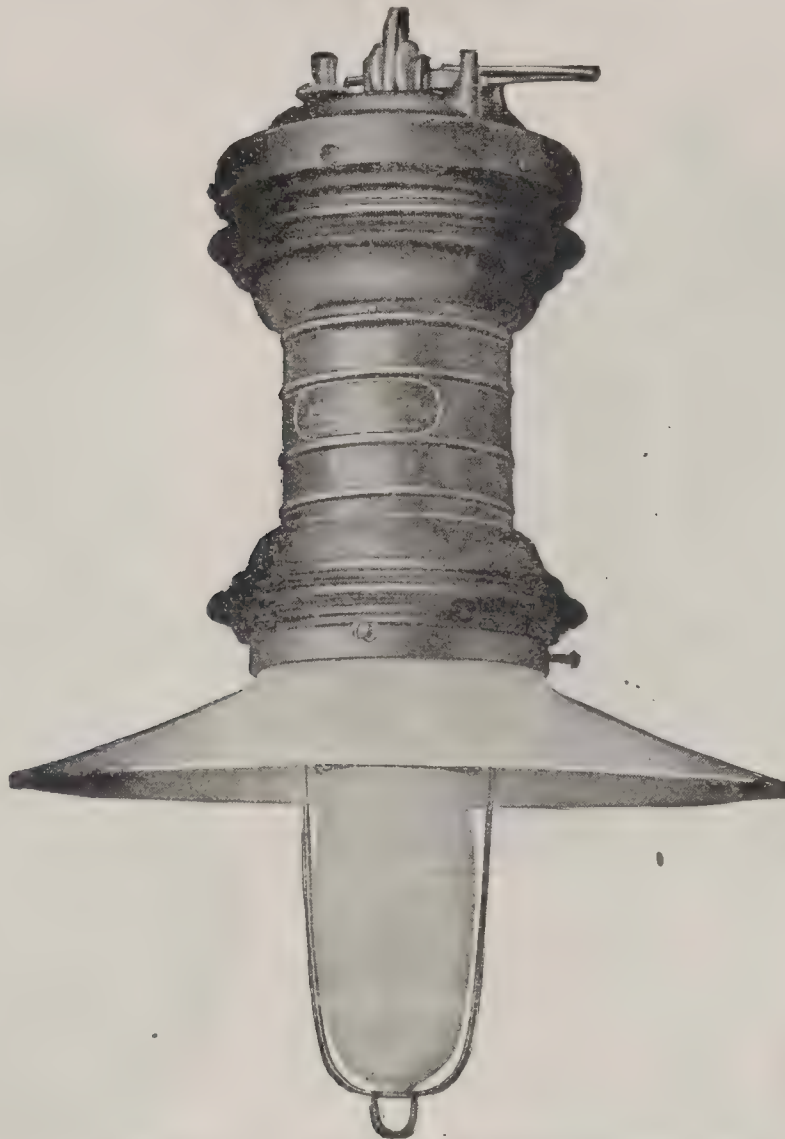
List No. 15229 2 Lights, 1 Gas, 1 Electric.....\$3 10

Price:

Insulating Joints, Wiring, Imitation Candles and Bobeches included.
Sockets, Shadeholders and Glassware extra.
Finished in Old Brass or Oxidized Copper for 10% extra.

ENCLOSED ARC LAMPS.

Direct Current.



Single Globe Closed Base Enclosing Globe
Lamp with Reflector.

110 to 125 Volt Multiple.
With Closed Base Enclosing Globes.

List No.	Amps.	Carbon Diam. Inches	Style of Outer Globe or Reflector	Mfrs. No.		Casing Finish	Inner Globe No.	Price.
				Lamp	Casing			
15245	*5	1/2	Single Globe with Reflector.....	9525	3545	Black Enamel Streaked Ox. Copper.....	46	\$28 00
15246	3 1/4	3/8		9528	3559		46	28 00
15247	*5	1/2	Double Globe with Closed Base Outer Globe.....	9525	†3564	Black Enamel Streaked Ox. Copper.....	46	28 00
15248	3 1/4	3/8		9528	†3567		46	28 00

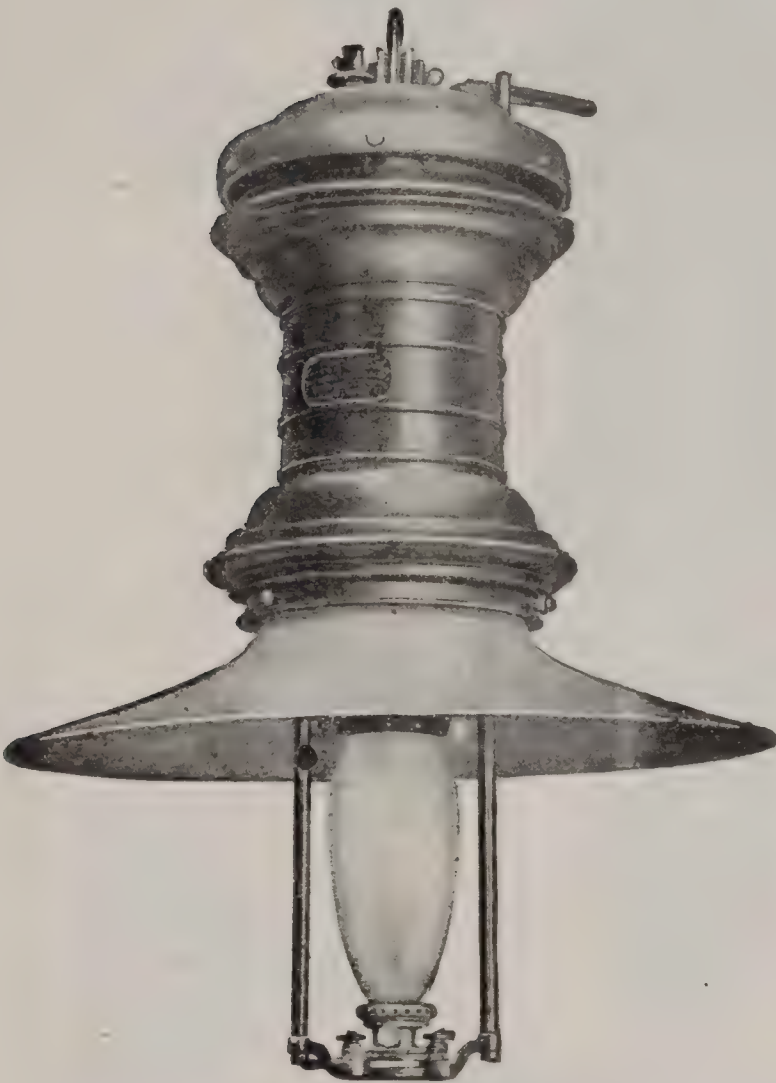
110 to 125 Volt Multiple.
With Open Base Enclosing Globe.

List No.	Amps.	Carbon Diam. Inches	Style of Outer Globe or Reflector	Mfrs. No.		Casing Finish	Inner Globe No.	Price.
				Lamp	Casing			
15249	*5	1/2	Double Globe with Open Base Outer Globe.....	9526	3516	Black Enamel Streaked Ox. Copper.....	3	\$28 00
15250	3 1/4	3/8		9529	3558		3	28 00
15251	*5	1/2	Double Globe with Closed Base Outer Globe.....	†9527	3564	Black Enamel Streaked Ox. Copper.....	3	28 00
15252	3 1/4	3/8		†9530	3567		3	28 00

* Can be adjusted for 4 1/2 amperes.

† Includes supporting ring with chain, screws and nuts.

ENCLOSED ARC LAMPS.
For Direct Current.



Single Globe Open Base Enclosing Globe Lamp
with Reflector.



Double Globe Open Base
Enclosing Globe Lamp.

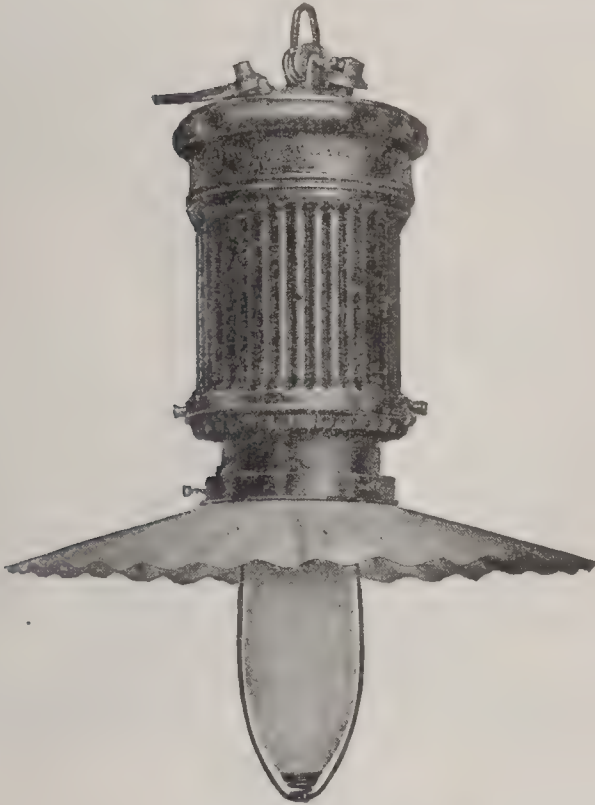
110 to 125 Multiple.
With Open Base Enclosing Globes and Reflector.

List No.	Amps.	Carbon Diam. In.	Style of Outer Globe or Reflector	Mfrs. No.		Casing Finish	Inner Globe No.	Price
				Lamp	Casing			
15253	5	1 1/2	Single Globe with Reflector	9527	3545	Black Enamel	3	\$28 00
15254	3 1/4	3/8		9536	3559	Streaked or Copper	3	28 00

For Alternating Current.
110 to 115 Volts Multiple.
With Closed Base, Enclosed Base, Enclosing Globes.

List No.	Amps.	Size Carbon	Style Outer Globe or Reflector	Mfrs. No.		Casing Finish	Inner Globe No.	Price
				Lamp	Casing			
15255	4	12x7/16	Single Globe with Reflector	9099	3573	Black Enamel	49	\$37 00
15256	6	12x1 1/2		9182	3579	Streaked or Copper	49	37 00
15257	7 1/2	12x1 1/2		9524		Black Enamel	49	37 00
15258	4	12x7/16	Double Globe with Closed Base Outer Globe	9099	3575	Streaked or Copper	49	37 00
15259	6	12x1 1/2		9182	3576	Black Enamel	49	37 00
15260	7 1/2	12x1 1/2		9524		Streaked or Copper	49	37 00

JANDUS ENCLOSED ARC LAMPS. FOR DIRECT AND ALTERNATING CURRENT.



Type 80.

Fittings: Single Globe, Lamp with porcelain lined metal Reflector.



Type 80.

Fittings: Single Globe, Lamp with porcelain Reflector No. 10.

DIRECT CURRENT MULTIPLE LAMPS.

200 Hours Carbon Life Guaranteed.
100 to 125 Volts.

List No.	Amp.	Finish.	Price.
11388.....	5	Copper, ox. copper.....	\$28 00
11389.....	5	Steel Japan	28 00
11390.....	5	Steel, ox. copper	28 00

DIRECT CURRENT.

220 Volt.

List No.	Amp.	Finish.	Price.
11391.....	2½-3	Copper, ox. copper.....	\$35 00
11392.....	2½-3	Steel, Japan	35 00
11393.....	2½-3	Steel, ox. copper	35 00

DIRECT CURRENT, POWER CIRCUIT.

2-in. Series Multiple on 220 Volt.
5-in. Series Multiple on 500 Volt.

List No.	Amp.	Finish.	Price.
11394.....	5	Copper, ox. copper.....	\$40 00
11395.....	5	Steel, Japan	40 00
11396.....	5	Steel, ox. copper	40 00

ALTERNATING CURRENT, MULTIPLE.

150 Hours Carbon Life Guaranteed.

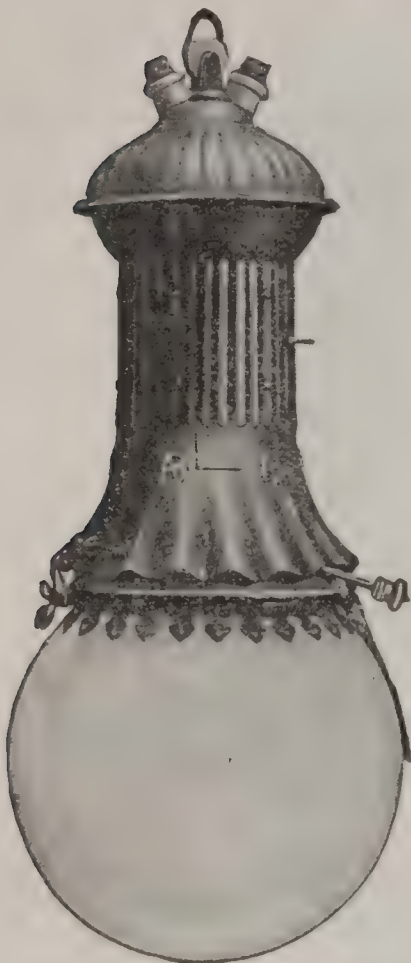
List No.	Amp.	Finish.	Price.
11397.....	6	Copper, ox. copper.....	\$37 00
11398.....	5	"	37 00



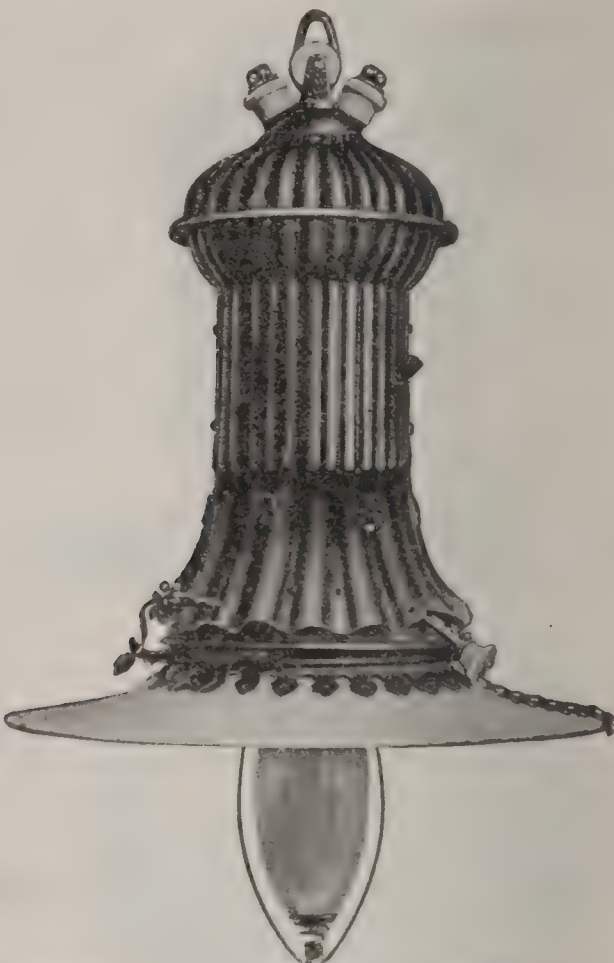
Type 80.
Double Globe.

The above prices are for lamps with double globes or shades.
Lamps with double globes will be shipped unless otherwise ordered.
(Always give Voltage and Current when ordering.)

A. B. ENCLOSED ARC LAMPS.
For all Circuits, Series or Multiple.



Showing Lamp Complete with Globes.



Showing Lamp with Porcelain Reflector.

Direct Current Multiple Lamps.

List No.	Amps.	*100 to 125 volts. Casing.	Finish.	Price.
15264	5	Solid Copper	Oxidized	\$28 00
15265	5	" "	Japan	28 00
15266	5	" "	Natural	28 00
15267	5	Steel	Japan	28 00

*Can be furnished in any current from 3 to 7 Amperes.

Direct Current.

List No.	Amps.	220 Volts. Casing.	Finish.	Price.
15268	2½-3	Solid Copper	Oxidized	\$35 00
15269	2½-3	" "	Japan	35 00
15270	2½-3	" "	Natural	35 00
15271	2½-3	Steel	Japan	35 00

Direct Current.

List No.	Amps.	2 in Series Multiple on 200 to 250 Volts. 5 " " " " 500 " 550 "	Casing.	Finish	Price.
15272	5		Solid Copper	Oxidized	\$40 00
15273	5		" "	Japan	40 00
15274	5		" "	Natural	40 00
15275	5		" "	Japan	40 00

The resistance in above Lamps is self-contained in Lamp case. Series differential mechanism.

Auxiliary automatic resistance can be furnished permitting any number of Lamps to be burned without injury or over load to other Lamps in circuit.

Alternating Current, Multiple Lamps.

List No.	Amps.	100 to 125 Volts, 40, 60 and 125 Cycles. Casing.	Finish.	Price.
15276	6	Solid Copper	Oxidized	\$37 00
15277	6	" "	Japan	37 00
15278	6	" "	Natural	37 00

Natural Finish is for out door use.

MANHATTAN INCANDESCENT LAMPS.

Manhattan Lamps.

Guaranteed as follows:

QUALITY:

Only the best material obtainable is used in the construction of "Manhattan" goods and they stand as the acme of successful lamp manufacture.

LIFE:

The average life is guaranteed on lamps below 130 volts as follows:

3.1 watt lamps for	600 hours.
3.5 " " "	800 "
4. " " "	1000 "

CANDLE POWER:

Maintains to 80% of initial candle power at expiration of guaranteed life. Initial limits for 16 candle power—15 c. p. to 17 c. p.

VOLTAGE:

These lamps are produced by the foremost maker in the United States. They have calls for every known voltage and their large yearly output permits them to give us a selection not obtainable in a smaller factory.

PRICES:

Our prices are the lowest consistent with standard goods and are only rendered possible through the extensive use of automatic machinery and large factory output.

SHIPMENTS:

We have at all times a large and assorted stock, which means prompt delivery.

Superficially colored lamps 20% additional. Natural Green, Blue, Purple, 2 to 32 c. p. inclusive 10c. additional. Natural Amber, Opal, Ruby, Canary, 2 to 32 c. p. inclusive 20c. additional.

FROSTING:

4-25 c. p.	add 2½c. to Net List.
32 " "	3c. " " "
50 " "	3½c. " " "
100 " "	5c. " " "

STANDARD PACKAGES.

2 to 24 c. p. inclusive,	not less than 200
31 to 50 " "	" " " 100
100 to 150 " "	" " " 20
Reflector Lamps	" " " 100

Write for special prices on quantities of 400 and over to be taken within one year. In ordering, always state candle power, voltage, efficiency and base. Price quoted is for Edison Base.

Westinghouse and T. H. Base 2 cents each additional net.

Interlocking Adapters.

For changing a Westinghouse Base Socket or Receptacle to Edison Base.

List No.		Price.
15280	Adapter complete.....per 100,	\$4 00
	One Handle with each 100.	

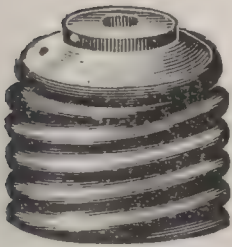
For changing T. H. Base Socket or Receptacle to Edison Base.

List No.		Price.
15281	Adapter complete.....per 100,	\$4 00

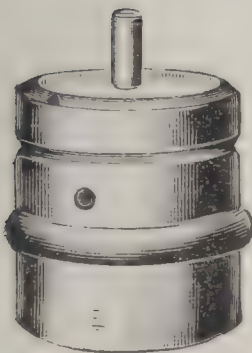
Candelabra Adapter.

By means of this Adapter, the Miniature Lamp, with its candelabra base which is too small to fit in the regular lamp socket, is made immediately available for use on an ordinary lighting circuit.

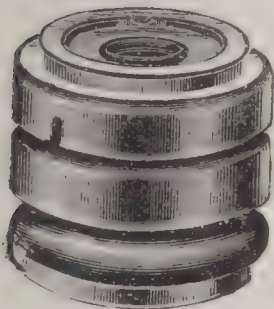
List No.	Std. Pkg.	Price.
35699	Candelabra Adapter..... 100	\$0 10



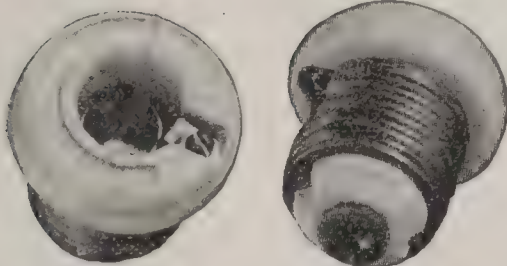
Edison.



Westinghouse.



T.-H.



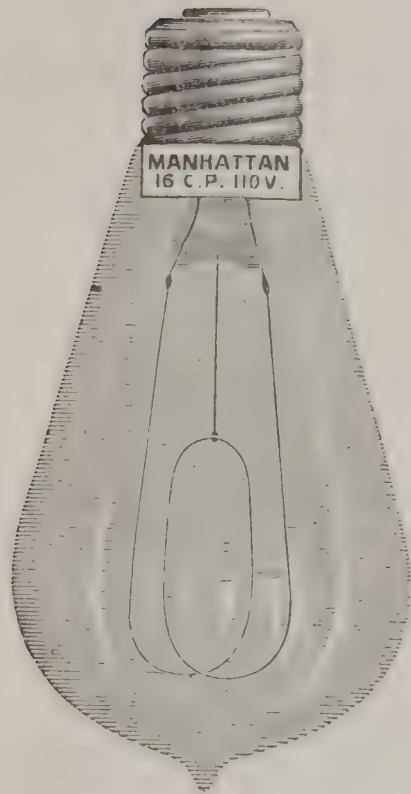
Candelabra Adapter.

MANHATTAN INCANDESCENT LAMPS.

Standard Lamps.

45 to 130 Volts Inclusive.

EDISON BASE



		Std. Pkg.	Price Less than Std. Pkg.	Price Std. Pkg. Lots.
2	C. P. Lamps.....	200	\$0 36	\$0 32
4	" ".....	200	36	32
6	" ".....	200	36	32
8	" ".....	200	36	32
10	" ".....	200	36	32
16	" ".....	200	36	32
20	" (3-1 and 3-6 W. P. C.).....	200	36	32
24	" (3-1 W. P. C.).....	200	36	32
20	" (4 W. P. C.).....	200	60	50
24	" (3-6 and 4 W. P. C.).....	200	60	50
32	" Lamps.....	100	60	50
50	" ".....	100	60	50
100	" ".....	20	2 00	1 80
150	" ".....	20	3 00	2 70

Standard Lamps.

200 to 250 Volts Inclusive.

8	C. P. Lamps.....	200	\$0 40	\$0 36
10	" ".....	200	40	36
16	" ".....	200	40	36
20	" ".....	200	60	50
24	" ".....	200	60	50
32	" ".....	100	76	66
50	" ".....	100	76	66

Round Lamps.

45 to 130 Volts Inclusive.



2	C. P. Lamps.....	200	\$0 46	\$0 42
4	" ".....	200	46	42
8	" ".....	200	46	42
10	" ".....	200	46	42
16	" ".....	200	46	42
32	" ".....	100	76	66
50	" ".....	100	1 46	1 36

Round Lamps.

200 to 250 Volts Inclusive.

2	C. P. Lamps.....	200	\$0 56	\$0 46
4	" ".....	200	56	46
8	" ".....	200	56	46
10	" ".....	200	56	46
16	" ".....	200	56	46
32	" ".....	100	1 06	96
50	" ".....	100	1 76	1 66

Tubular Lamps.

45 to 130 Volts Inclusive.



4	C. P. Lamps.....	200	\$0 36	\$0 32
8	" ".....	200	56	52
10	" ".....	200	56	52
16	" ".....	200	56	52
32	" ".....	100	1 06	96

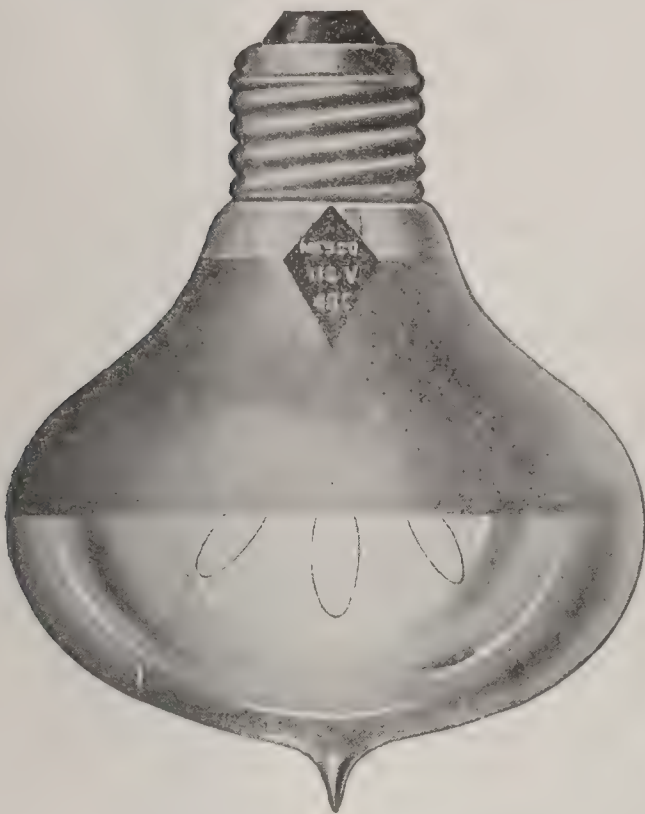
Tubular Lamps.

200 to 250 Volts Inclusive.

16	C. P. Lamps.....	200	\$0 86	\$0 76
32	" ".....	100	1 43	1 36

In ordering give Candle Power, Voltage, Shape and Base wanted.

MANHATTAN REFLECTOR LAMPS.



Regular Type.

This lamp gives over 40 candle power of light and consumes no more current than an ordinary 16 candle power lamp. It is especially adapted for use in factories and mills where a strong light without shadows is required.

45 to 150 Volt inclusive.

Crystal Front.

List No.		Price.
11401	20 c. p. Edison Base.....	\$0 60
15284	40 " " "	60

Frosted Front.

15285	20 c. p. Edison Base.....	60
15286	40 " " "	60

200 to 250 Volts inclusive.

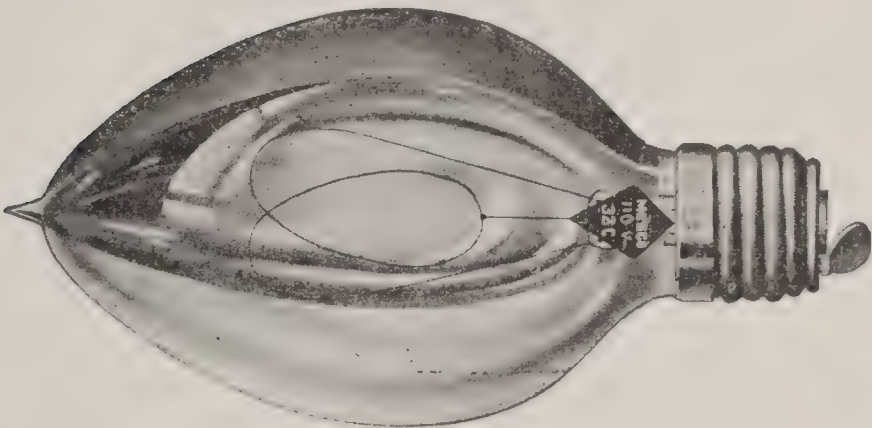
Crystal Front.

15287	20 c. p. Edison Base....	60
15288	40 " " "	60

Frosted Front.

15289	20 c. p. Edison Base.....	60
15290	40 " " "	60

Type H Reflector Lamp.



Our new Form of Reflector Lamp is particularly adapted for use at the cornice of rooms and inside of show cases, show windows, etc., where strong reflected light is required, and where decorations prohibit the use of our regular type reflector lamp.

It is also especially designed for use as a desk lamp, particularly in connection with flexible brackets, etc.

We desire to call particular attention to the special form of base with which this lamp is equipped. The spring contact attached to the cap permits the lamp to be inserted in the socket in such a manner that the reflecting surface may be placed in any position desired, and the light deflected in the exact direction required by the user.

45 to 130 Volts inclusive.

List No.		Price.
15291	32 c. p. Lamp Edison Base.....	\$0 90
15292	32 " " West, "	90



THE MERIDIAN LAMP.

With Prismo or Metal Shades.

The Meridian Lamp is intermediate in intensity between the arc lamp and the ordinary incandescent. It is as simple in construction and operation as an ordinary incandescent lamp, but in intensity and efficiency it approaches the arc lamp and equals in efficiency any other electrical illuminant in practical service to-day. The light given is very agreeable, as it is of high brilliancy, soft and white, uniformly diffused and absolutely steady.

The Meridian Lamp fills a long felt want in providing a simple high candle power unit of pleasing appearance and correct design for the attractive illumination of interiors; not only when artistic effects are essential, as in residences, hotels and theatres, but also where practical and effective illumination at high efficiency is desirable, as in office buildings, libraries, studios, drafting rooms, factories and retail stores. The excellent downward distribution of light makes this lamp effective when installed overhead or near the ceiling, as a substitute for elaborate, expensive and frequently disfiguring clusters or chandeliers which are often the only discordant features of beautifully decorated interiors.

The lamp is made in two sizes, 50 candle power (5 in. bulb) consuming 120 watts, and 25 candle power (3¾ in. bulb) consuming 60 watts.

The fittings for both sizes of lamps consist of collar and reflector, either alone or with extension tube for suspension from ceiling. The latter should preferably be used, and the tubes are supplied in different lengths for various heights of ceilings.



90 to 130 Volts. Edison Base.

List No.....	Candle Power.....	Total Watts Consumption	Size Bulb Inches...	Standard Package..	Price of Lamps for Renewal in Std. Pkg. Lots.....	Price of Lamps for Renewal in less than Std. Pkg. Lots.....	Price of Lamp with Holder and Prismo Shade Std. Pkg. Lots	Price of Lamp with Holder and Prismo Shade in less than Std. Pkg. Lots...	Price of Lamp with Prismo Shade and Extension Tube Fitting Std. Pkg. Lots	Price of Lamp with Prismo Shade and Extension Tube Fitting in less than Std. Pkg. Lots
15234	25	60	3¾ (Tipless	24	\$0 80	\$0 56	\$1 80	\$1 56	*\$3 30	\$3 46
15296	25	60	3¾ (Tip	24	74	90	1 80	1 96	*3 30	3 46
15237	50	120	5 (Tipless	24	1 20	1 40	2 50	2 70	†4 50	4 70
15238	50	120	5 (Tip	24	1 10	1 30	2 50	2 70	†4 50	4 70

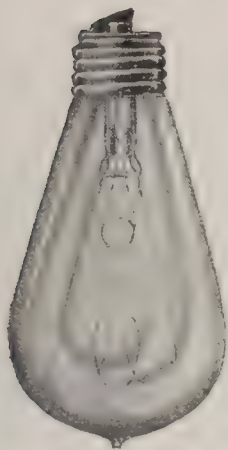
* Standard over all length of lamp with fittings, 15 inches.
† Standard over all length of lamp with fittings, 18 inches.

Extra Lengths of Tubing.

List No.		Price.
11411	1/8 inch Brass Pipe for 3¾ inch lamp.....	per foot, \$0 35
11412	3/4 " " " and gas pipe for 5 inch lamp.....	50

Always give voltage and list of fittings wanted when ordering.

HYLO LAMPS.



The Hylo Lamps have two light giving filaments. One of the usual size and the other very small, giving about one candle power. One Hylo Lamp when turned down saves five-sixths of the current an ordinary lamp would use. It also lasts as long as three ordinary lamps.

Turn Bulb Hylo.

EDISON BASE.

95 to 125 Volts Inclusive.

List No.						Price.
5418	Edison base, 16 to 1 candle power				each,	\$1 20
5419	T.-H.	"	16	"	"	1 30
5420	West.	"	16	"	"	1 20
11416	Edison	"	8	"	$\frac{1}{2}$	1 20
11417	T.-H.	"	8	"	$\frac{1}{2}$	1 30
11418	West.	"	8	"	$\frac{1}{2}$	1 20
11419	Edison	"	32	"	1	1 50

200 TO 250 VOLTS.

11422	Edison base, 16 to 2 candle power				each,	\$1 30
11423	T.-H.	"	16	"	2	1 40
11424	West.	"	16	"	2	1 30



Pull String Hylo.

Where the socket key is too high to be reached easily it will be found very convenient to use the Pull String Hylo. The lamp is provided with strings 13 inches long which turn the light down and then out. A difference in the color of the strings makes it easy to pull the right one. The contacts are large, sparkless and not affected by dampness. The lamp operates in any position.

ANY VOLTAGE 90 TO 125.

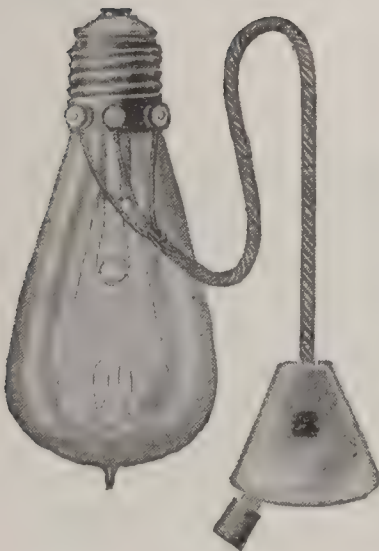
List No.						Price.
11425	Edison base, 16 to 1 candle power				each,	\$1 20
11426	T.-H.	"	16	"	1	1 30
11427	West.	"	16	"	1	1 20
11428	Edison	"	8	"	$\frac{1}{2}$	1 20
11429	T.-H.	"	8	"	$\frac{1}{2}$	1 30
11430	West.	"	8	"	$\frac{1}{2}$	1 20
11431	Edison	"	32	"	1	1 20

220 TO 250 VOLTS.

11434	Edison base, 16 to 2 candle power				each,	\$1 30
11435	T.-H.	"	16	"	2	1 40
11436	West.	"	16	"	2	1 30

The Long Distance Hylo Lamp.

This is a great convenience in many places such as sick rooms ceiling clusters, porch lanterns, enclosed globes, etc. Each lamp has a special switch attached by conducting cord and may be used any length. The switch turns the light out as well as down.



List No.						Price.
11437	Edison base, 16 to 1 candle power					\$2 50
11438	T.-H.	"	16	"	1	2 50
11439	West.	"	16	"	1	2 50
11440	Edison	"	8	"	$\frac{1}{2}$	2 50
11441	T.-H.	"	8	"	$\frac{1}{2}$	2 50
11442	West.	"	8	"	$\frac{1}{2}$	2 50
11443	Edison	"	32	"	1	2 50

Cord for Long Distance Hylo is furnished two feet long unless otherwise ordered. Extra length 5 cents per foot additional.

HYLO LAMPS.

Self-Flashing Sign Lamp.



Within the ordinary Edison base there is concealed a mechanism which turns the light up and down at irregular intervals. Each lamp is an independent unit and runs on its own time card. The effect is startling and kaleidoscopic. The self-flashing sign lamp will last as long as five ordinary lamps. It will save enough current as compared with a common lamp burning steady, to pay for itself several times over. Gives a maximum eye-catching quality with a minimum first cost and minimum current. The mechanism is water-proof, fool-proof, non-get-at-able, non-adjustable and positively guaranteed for one year.

90 to 125 Volts.

Edison Base only.

List No.		Price.
11448	Edison base, 16 to 1 candle power.....each,	\$2 00
11449	" " 8 " 1/2 "	2 00

220 to 250 Volts.

11450	Edison base, 16 to 2 candle power.....	" 2 00
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For coloring, add 20 cents each. For frosting, add 10 cents each.

The Skedoodle Socket Plug.



Fits any Edison-type socket and holds any ordinary lamp. It flashes the lamp on and off about fifteen times a minute. Will outlast several lamps. Each plug is complete in itself and independent of every other socket. Electric light is twice as attractive when it flashes. Your sign or show window can be fitted with Skedoodle Socket Plugs, so you can use the lamps you already have. They save enough current to pay for themselves.

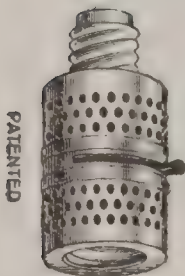
100 to 120 Volts.

List No.		Price.
11451	Style A, for 16 candle power lamp	each, \$1 00
11452	" B, " 8 " " "	1 00
11453	" C, " 4 " " "	1 00

200 to 250 Volts.

11454	" D, " 16 candle power lamp	" 1 00
11455	" E, " 8 " " "	1 00

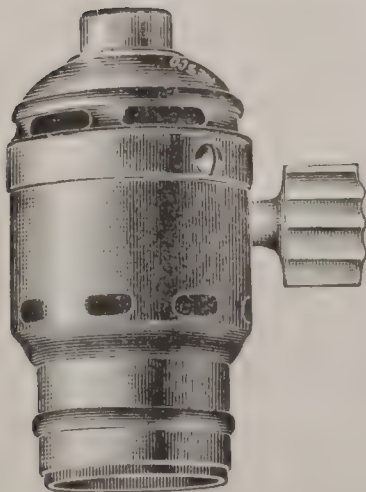
Strauss Regulating Socket.



The Strauss Regulator or "Turndown" Plug-socket is guaranteed to be absolutely perfect and practically indestructible. It is made to stand 110 volts direct or alternating current and considerable overload. There are five gradations of light from a full brilliancy to a soft glow, accomplished by means of a specially constructed rheostat. When the lamp is turned down to its lowest point by means of this regulator, there is a saving of 65 to 70 per cent. of power and the effect is a soft glow throughout the room. This socket can also be used as a rheostat in regulating speed of small motors or fans.

List No.	Finish.	Price.
11458	Polished Nickel.....	each, \$2 50
11459	" Brass	2 50
11460	Brushed Brass.	2 80
11461	Oxidized Copper	2 80

Bogia Regulating Socket.



This socket can be put on any fixture with the same facility that ordinary sockets are attached.

It will give any degree of incandescence from one-half candle power to full candle power of lamp attached with corresponding saving in current consumption. No special type of lamp required.

Adapted for either alternating or direct current.

Type A. 110 to 125 Volts.

List No.		Price.
15300	Reg. socket, Edison base.....	\$1 50
15301	" " T.-H. "	1 60

Type B. 220 to 250 Volts.

15302	Reg. socket, Edison base..	\$1 50
15303	" " T.-H. " ..	1 60

THE ECONOMICAL TURN DOWN LAMP.

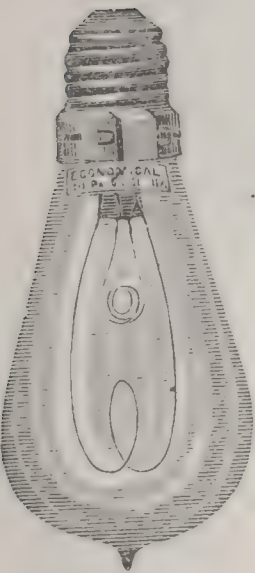


Pull String Lamp.

This Lamp screws firmly into a socket and light is regulated by pulling either string, as shown in illustration.

A saving of 80 per cent. current when small filament is used. Life is 4 times that of ordinary lamp.

It can be used in any style of fixture, upright, downward or from the side, also with "inclosed shades" or globes, this cannot be accomplished with any other turn down lamp.

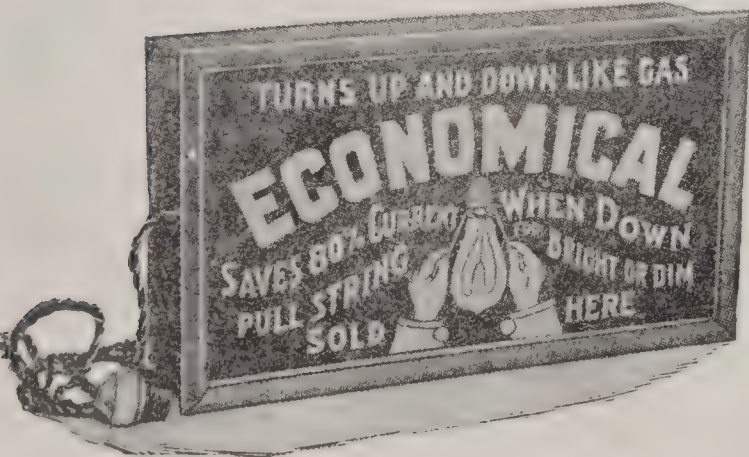


List No.		50 to 130 Volts.	Price.
11464	Edison base, 8 to 1/2 candle power	.....	\$0 90
11465	T.-H. " 8 " 1/2	.....	90
11466	West. " 8 " 1/2	.....	90
11467	Edison " 16 " 1	.....	90
11468	T.-H. " 16 " 1	.....	90
11469	West. " 16 " 1	.....	90
100 to 130 Volts.			
15376	Edison base, 32 to 1 candle power	.....	\$1 10
200 to 250 Volts			
15377	Edison base, 16 to 1 candle power	.....	1 00

Turn Bulb Lamp.

This Lamp screws firmly into socket before light is obtained and therefore cannot be affected by vibration. Turn to left for small, to right for large.

List No.		50 to 130 Volts.	Price.
11470	Edison base, 8 to 1/2 candle power	.....	\$0 90
11471	T.-H. " 8 " 1/2	.....	90
11472	West. " 8 " 1/2	.....	90
11473	Edison " 16 " 1	.....	90
11474	T.-H. " 16 " 1	.....	90
11475	West. " 16 " 1	.....	90
100 to 125 Volts.			
15378	Edison base, 32 to 1 candle power	.....	1 10
200 to 240 Volts.			
15379	Edison base, 16 to 1 candle power	.....	1 00



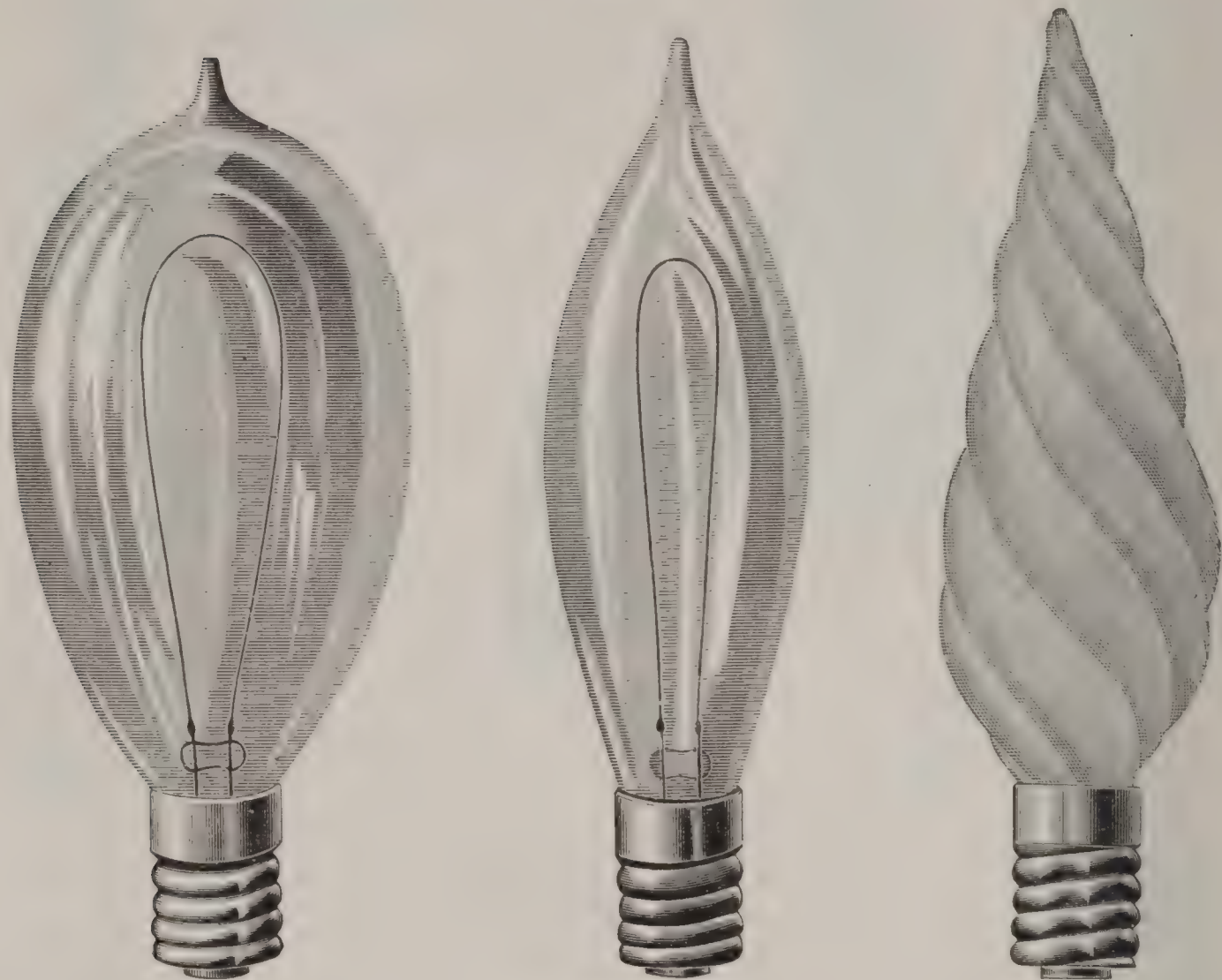
A Silent Salesman.

A window demonstrator that shows automatically how the Economical actually works when used by the consumer.

When 50 lamps are ordered a window display is furnished free.

In ordering give list number, voltage and style of base.

SERIES OR MULTIPLE CANDELABRA LAMPS.



Style A.				Style B.				Style D.			
4	C. P.	25	to 32 Volts.	4	C. P.	25	to 32 Volts.	4	C. P.	25	to 32 Volts.
5	"	30	" 45 "	5	"	30	" 45 "	5	"	30	" 45 "
8	"	45	" 130 "	8	"	45	" 130 "	8	"	45	" 130 "

Candelabra Base.

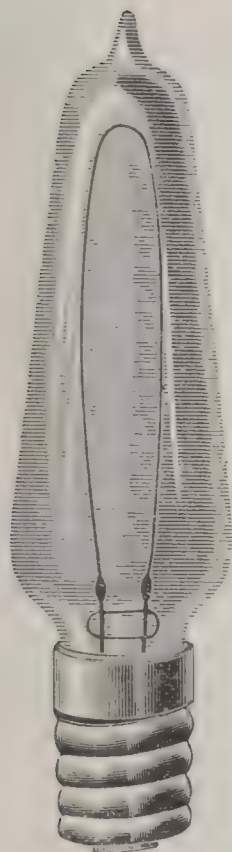
		Style A.		Price in		Price in lots	
List No.				less than 200.		of 200 or more.	
15305	Plain.....			\$0	56	\$0	50
15306	Natural Colored Glass, Green, Blue or Purple.....				70		64
15307	" " " Ruby.....				96		90
		Style B.					
15308	Plain.....			56		50	
15309	Natural Colored Glass, Green Blue or Purple.....			70		64	
15310	" " " Ruby.....			96		90	
		Style D.					
15311	Plain..			66		60	
15312	Natural Colored Glass, Green, Blue or Purple.			80		74	
15313	" " " Ruby.			1 06		1 00	

Frosted Lamps 2 cents net additional to net prices of plain lamps. Superficially colored (dipped) lamps, 4 cents net additional to net prices of plain lamps.

Extra charges for other bases as follows: German, French and Ediswan types of miniature bases, 5 cents per lamp to net price. Tipless lamps, 4 cents additional per lamp net.

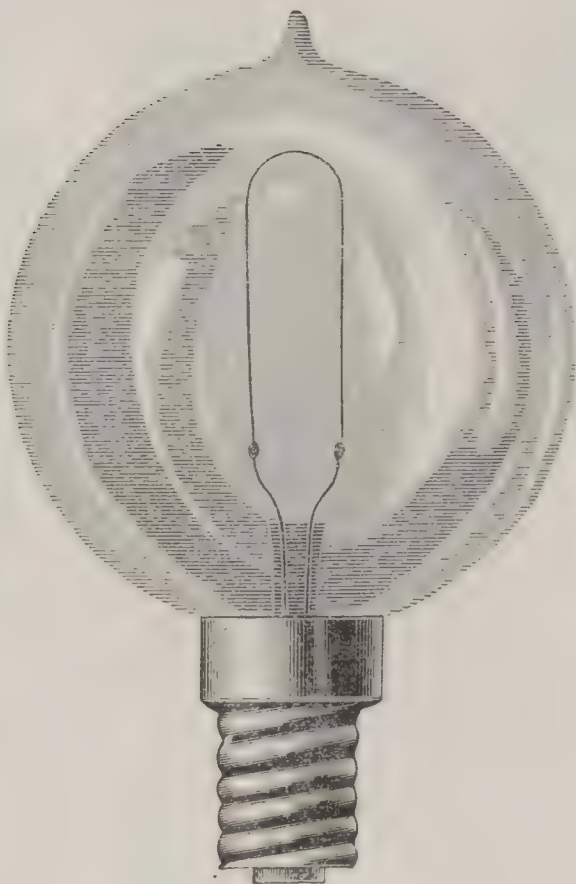
In ordering lamps give list number, voltage, candle power and style of Base.

SERIES OR MULTIPLE CANDELABRA LAMPS.



Style C.

4 C. P. 25 to 32 Volts
5 " 30 " 45 "
8 " 45 " 65 "



Style G.

8 C. P. 45 to 130 Volts.
16 " 45 " 130 "



Style E.

4 C. P. 25 to 32 Volts.
5 " 30 " 45 "
8 " 45 " 130 "

Candelabra Base.

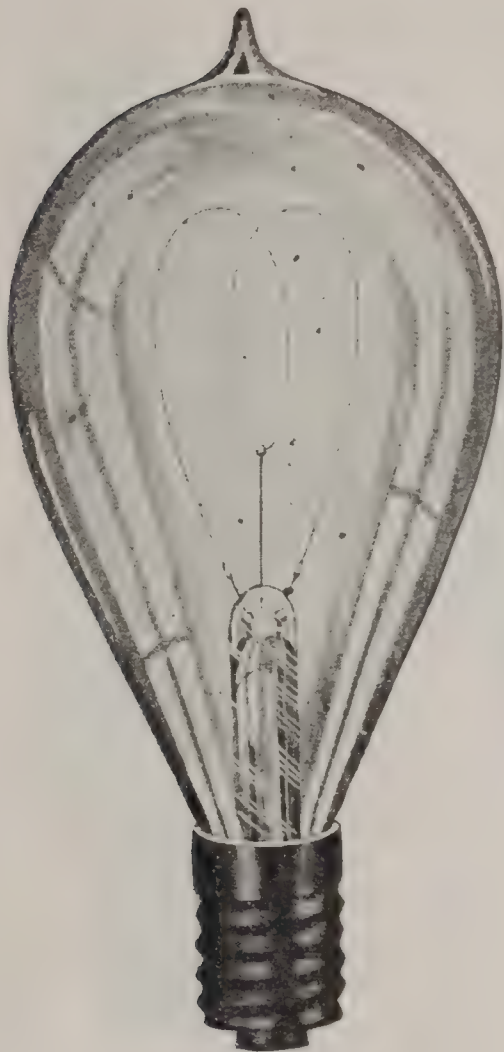
List No.	Style C.	Price on	Price in lots.
		less than 200.	of 200 or more.
15314	Plain.....	\$0 56	\$0 50
15315	Natural Colored Glass, Green, Blue or Purple.....	70	64
15316	" " " Ruby.....	96	90
Style G.			
15317	Plain.....	56	50
15318	Natural Colored Glass, Green, Blue or Purple.....	70	64
15319	" " " Ruby.....	96	90
Style E.			
15320	Plain.....	56	50
15321	Natural Colored Glass, Green, Blue or Purple...	70	64
15322	" " " Ruby.....	96	90

Frosted Lamps 2 cents net additional to net prices of plain lamps. Superficially colored (dipped) lamps 4 cents additional to prices of plain lamps.

Extra charges for other bases as follows: German, French and Edi-Swan types of miniature bases 5 cents per lamp. Tipless lamps 4 cents additional per lamp.

When ordering give list number, voltage and candle power wanted.

SERIES AND MULTIPLE CANDELABRA LAMPS.



Style F.

8 C. P.	40- 65 Volts.
4 "	70-130 "
6 "	70-130 "
8 "	70-130 "



Style J.

4 C. P.	20- 60 Volts.
6 "	20- 60 "
2 "	70-130 "
5 "	70-130 "

Candelabra Base.
Style F.

List No.		Prices on Less than 200.	Price in Lots of 200 or more.
15323	Plain.....	\$0 50	\$0 44
15324	Natural Colored Glass, Green, Blue or Purple.....	64	58
15325	" " " Ruby.....	90	84

Style J.

15326	Plain..	46	40
15327	Natural Colored Glass, Green, Blue or Purple.....	56	50
15328	" " " Ruby.....	76	70

Frosted Lamps, 2 cents net additional to net prices of Plain Lamps.

Superficially Colored (Dipped) Lamps, 4 cents net additional to net prices of Plain Lamps.

Extra Charge for other Bases as follows: French, German and Edi-Swan Miniature Lamp Bases, 5 cents per lamp net.

Tipless Lamps, 4 cents additional per lamp.

In ordering lamps, state candle-power, voltage, base and style, with List No.

MINIATURE SERIES LAMPS.



Style H.

3 C. P.—14 Volts.
2 C. P.—70–130 Volts.



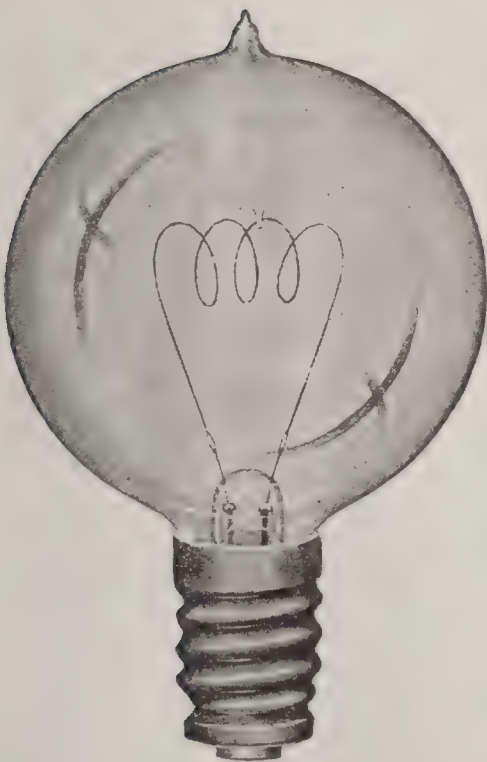
Style I.

1 C. P.—14 Volts.
1½ C. P.—28 Volts.



Style G 10.

1 C. P.—14 Volts.



Style G 12.

2 C. P.—70 to 130 Volts.

Style H.

List No.		Price in Less than 200 Lots.	Price in Lots of 200 or more.
15329	Plain.....	\$0 46	\$0 40
15330	Natural Colored Glass, Green, Blue or Purple.....	56	50
15331	Natural Colored Glass, Ruby..	76	70

Style I.

15332	Plain.....	46	40
15333	Natural Colored Glass, Green, Blue or Purple.....	56	50
15334	Natural Colored Glass, Ruby..	76	70

Style G 10.

15335	Plain.....	50	44
15336	Natural Colored Glass, Green, Blue or Purple.....	60	54
15337	Natural Colored Glass, Ruby..	80	74

Style G 12.

15338	Plain.....	50	44
15339	Natural Colored Glass, Green, Blue or Purple.....	60	54
15340	Natural Colored Glass, Ruby..	80	74

Miniature or Candelabra Base.

Miniature Base will be furnished unless otherwise ordered.

Frosted Lamps, 2 cents net additional to net prices of Plain Lamps.

Superficially Colored (Dipped) Lamps, 4 cents net additional to prices of Plain Lamps.

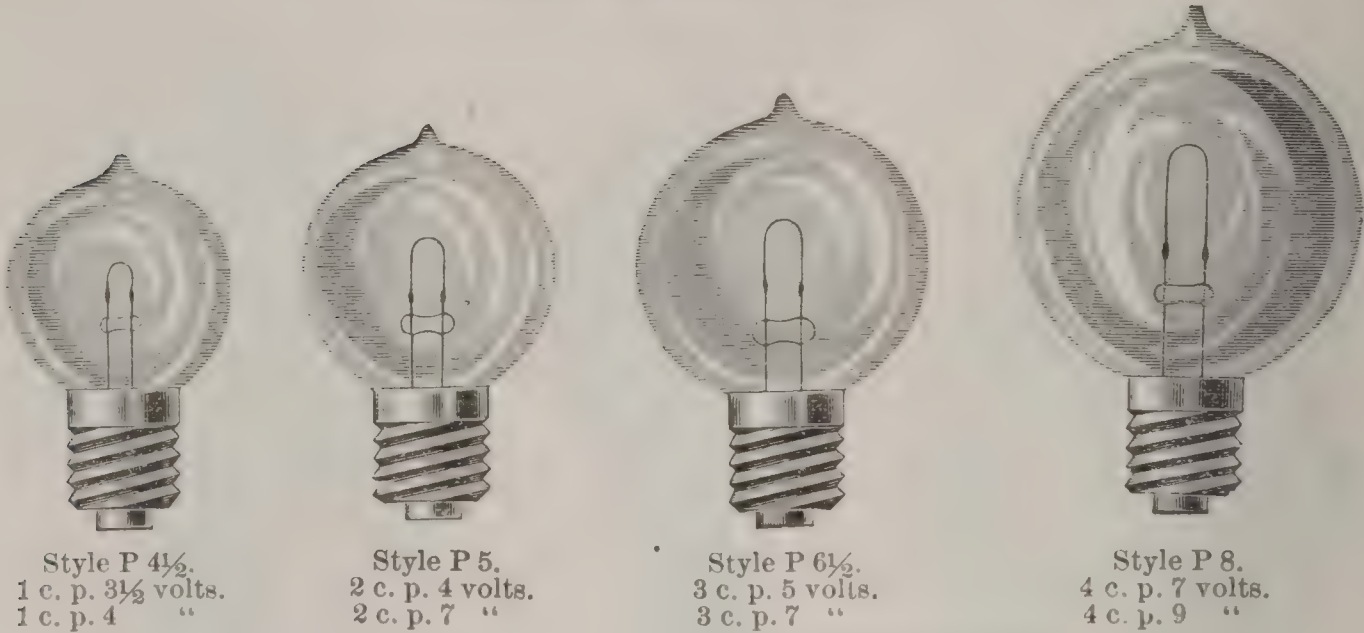
Extra Charge for other Bases as follows: French, German and Edi-Swan Miniature Lamp Bases, 5 cents per lamp net.

Tipless Lamps, 4 cents additional per lamp.

In ordering Lamps, state candle-power, voltage, base and style, as well as List No.

MINIATURE BATTERY LAMPS.

Edison Miniature Base.

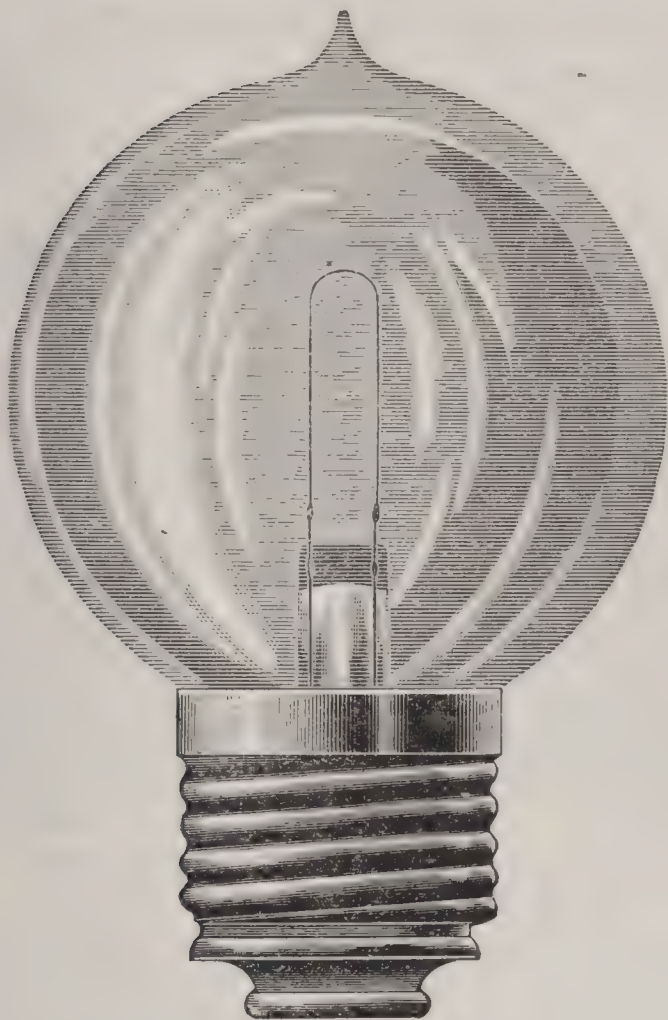


General Battery Lamps.

List No.		Style P 4 1/2.	
		Price in Lots less than 100	Price in Lots of 100 or more
15341	Plain.....	\$0 48	\$0 42
15342	Natural Colored Glass, Green, Purple or Blue	58	52
15343	Natural Colored Glass, Ruby.....	78	72
Style P 5.			
15344	Plain.....	\$0 48	42
15345	Natural Colored Glass, Green, Purple or Blue	58	52
15346	Natural Colored Glass, Ruby.....	78	72
Style P 6 1/2.			
15347	Plain.....	\$0 48	42
15348	Natural Colored Glass, Green, Purple or Blue	58	52
15349	Natural Colored Glass, Ruby.....	78	72
Style P 8.			
15350	Plain.....	\$0 48	42
15351	Natural Colored Glass, Green, Purple or Blue	58	52
15352	Natural Colored Glass, Ruby.....	78	72
Style P 9.			
15353	Plain.....	\$0 48	42
15354	Natural Colored Glass, Green, Purple or Blue	58	52
15355	Natural Colored Glass, Ruby.....	78	72
Novelty Battery Lamps.			
Round.			
15356	Plain.....	\$0 42	36
15357	Natural Colored Glass, Green, Purple or Blue	52	46
15358	Natural Colored Glass, Ruby.....	62	56
Tubular.			
15359	Plain.....	\$0 42	36
15360	Natural Colored Glass, Green, Purple or Blue	52	46
15361	Natural Colored Glass, Ruby.....	62	56

Frosted Lamps 2 cents net additional, and superficially colored (dipped) lamps 4 cents net additional to price of plain lamps.
In ordering Lamps give List Number, candle power, voltage, style of base, etc

AUTOMOBILE LAMPS.



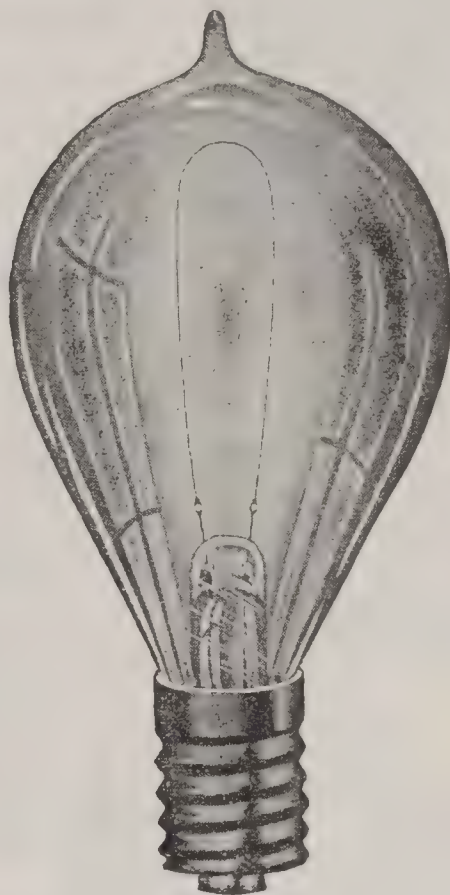
List No. 5379.

Highly Efficient Battery Lamps.

Standard Edison Base.

This Lamp is suitable for Yachts, Train Lighting, or Sign Illuminating where a short, compact lamp is required. Has a very long life if given fair usage.

List No.	Volts.	C. P.	Std. Pkg.	Price Std. Pkg.	Price Less than Std. Pkg.
15362	8	3	200	\$0 70	\$0 80
15363	10	5	200	70	80
15364	20	10	200	50	60



6 C. P.

20-60 Volts.

Candelabra Base.

For Storage Battery Work.

List No.	Volts.	C. P.	Std. Pkg.	Price Std. Pkg.	Price Less than Std. Pkg.
15365	20	6	100	\$0 40	\$0 46
15366	40	6	100	40	46
15367	60	6	100	40	46

Novelty Candle Lamps.

List No.	Volts.	C. P.	Std. Pkg.	Price Std. Pkg.	Price Less than Std. Pkg.
15368	4	1	100	\$0 48	\$0 54
15369	5½	1	100	48	54

Telephone Lamps.

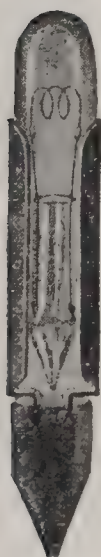
Voltage to suit.

Based with Miniature Screw or Slide Base.

List No.		Std. Pkg.	Price Std. Pkg.	Price Less than Std. Pkg.
15370	With Tip....	100	\$0 32	\$0 38
15371	Tipless.....	100	36	42

Frosted Lamps 2 cents net additional and Superficially Colored (Dipped) Lamps 4 cents net additional to prices of plain lamps.

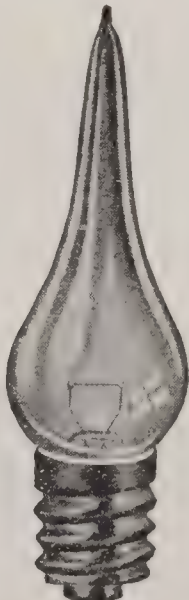
In Ordering Lamp give List No., candle power, voltage and style of base.



Telephone. Tipless.



Telephone. Tip.



Candle.

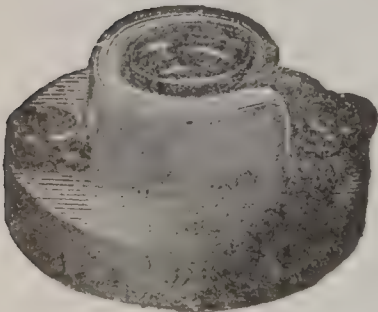
MINIATURE AND CANDELABRA
SOCKETS AND RECEPTACLES.



Brass Shell Socket.

This socket is of brass, with porcelain insulating parts made in two sizes to fit miniature and candelabra base lamps.

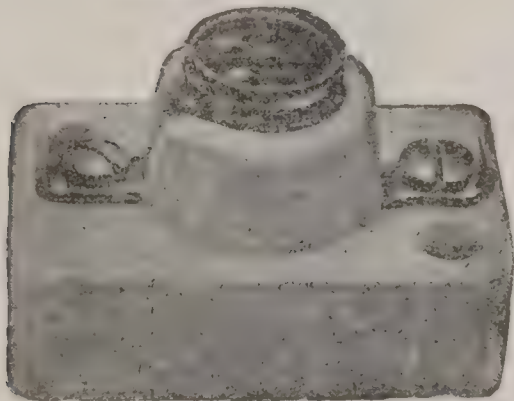
List No.	Price.
5330 Miniature base, 1/8 in. pipe.....	each, \$0 60
5333 Candelabra " 1/8 " "	" 60



Standard Flat Base Receptacle.

Made of glazed white porcelain, and in two sizes as below:

List No.	Price.
5331 Miniature base.....	each, \$0 15
5332 Candelabra "	" 18



Special Sign Receptacle.

This receptacle is made of porcelain, and is used extensively for sign work. Very strong and substantial.

List No.	Price.
5334 Candelabra base.....	each, \$0 30



Round Candelabra Receptacle.

It is made of porcelain and is especially designed for use on fixtures fitted with glass candles. The receptacle screws into central supporting tube, and the candles, when in place, cover both tube and receptacle. The screw at lower end supplied either male or female.

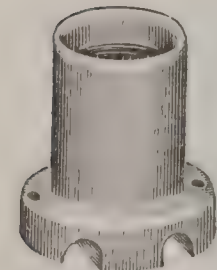
List No.	Price.
5335 Candelabra base, male.....	each, \$0 30
5336 " " female.....	" 30



Flush Sign Receptacle.

Diameter of base, 1 3/8 inches; thickness of base, 3/8 inches; Height above base, 7/8 inches; diameter of top, 7/8 inches.

List No.	Price.
25705 Candelabra base.....	each, \$0 24



List No. 25705.



List No. 11480.

Christmas Tree Receptacle.

A brass receptacle with pin in bottom; can be fastened securely with slight pressure. Extensively used for decorating purposes.

List No.	Price.
11480 Miniature base.....	each, \$0 15



List No. 11481.

Miniature Weatherproof Socket.

This is a No. 9366 socket in miniature. Has rubber covered wire terminals, sulphur filled shell and is absolutely weatherproof.

List No.	Price.
11481 Miniature base.....	each, \$0 18
11482 Candelabra "	" 18

STANDARD SOCKETS AND RECEPTACLES.

We carry a very complete stock of G. E. sockets and receptacles in both New York and Chicago stores and can make exceptionally prompt shipments.

G. E. sockets are undoubtedly the standard of the world and are readily recognized as the leaders. All sockets are of the approved form, fibre lined and adapted for circuits up to 250 volts and fifty candle power.

Sockets in Special Finishes.

It is of considerable advantage to the electrical trade to obtain sockets on short notice in various special finishes. It is also economical, as the refinishing of a socket after it has been assembled is somewhat expensive.

To meet the demand for this class of goods, we are now carrying in stock sockets and shade-holders in all the standard finishes, such as old brass, rich gilt, nickel-plated, etc.

Special finishes, occasionally used, we will not carry regularly, but are prepared to furnish on short notice to order.

In placing orders for special finishes, which are not considered regular, we would suggest the submitting at the same time, of a sample for our information.

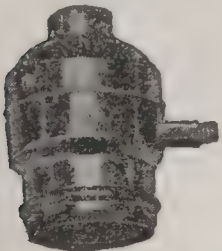
Prices for Special Finishes.

All sockets excepting pull sockets and sockets with shade-holders attached, with the following special finishes, polished gilt, old or ground brass, mottled, oxidized, black oxidized, antique or acid copper, antique brass, oxidized brass, polished nickel, wrought iron, ground or Butler's silver, 4 cents extra on the list. All other finishes, 6 cents extra on the list, except on orders for 500 of one style, in which case the list price will be 4 cents higher than regular list. Standard package same as regular finish, but regular and special finishes of one catalogue number may be assorted to make up quantity. Sockets with shade-holders attached, in special finishes, 2 cents more than the sockets without shade-holders.

Pull Sockets.

Sockets in old or brush brass, polished gilt, oxidized copper, polished nickel—add to list price,	\$0 06
Sockets in old English bronze, antique brass, oxidized brass, English bronze, etruscan gilt, gold bronze, mottled copper, antique or acid copper, polished bronze, polished copper, polished steel, wrought iron—add to list price	10
Sockets in satin gold, oxidized silver, ground or Butler's silver—add to list price.....	15
Special finishes on extra chain—add to list price per foot.	02

Sockets with Extension Keys.



Add 12 cents to price for regular sockets.

We are prepared to furnish sockets with extension keys, as shown in the illustration, designed to receive a special key furnished by the fixture manufacturer to match the fixture.

The metal part of the extension key is thoroughly insulated from the other parts of the socket by hard rubber.

Sockets With Extra Long Keys.



Add 5 cents to price for regular sockets.

The key sockets listed in this catalogue can be supplied with extra long keys. Sockets so fitted will be supplied only on special order, which must specify distance desired between outside of shell and end of handle.

We carry the following lengths in stock: 1¼ inch, 1½ inch, 2 inch and 2½ inch.

On orders for sockets with extra long keys where the length is not given we make it our rule to ship 1½ inch.

Combined Socket and Shade Holder.



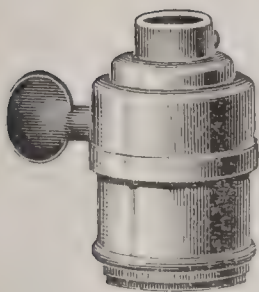
In the combined socket and shade-holder shown in the accompanying illustration the shade-holder is permanently attached to the socket shell, and the combination has several advantages over the socket with detachable shade-holder. It is simple in construction and the shade-holder cannot get loose and slide or turn on the socket shell. Installed in any position, this device holds the shade firmly and prevents sagging.

Key and keyless sockets and receptacles with the combined socket shell and shade-holder are listed on following pages.

STANDARD SOCKETS.

Electrolier Sockets.

Fibre Lined for 220 Volts.



List No.		Std. Pkg.	Price.
29623	Key Sockets for 1/8 inch Pipe.....	250	\$0 55
29624	" " " 3/8 " "	100	61

Pendant Pull Socket.

Fibre Lined, 250 Volts.

Standard length of chain 8 inches. For longer chains add 10c. per foot.



*No. 9366.



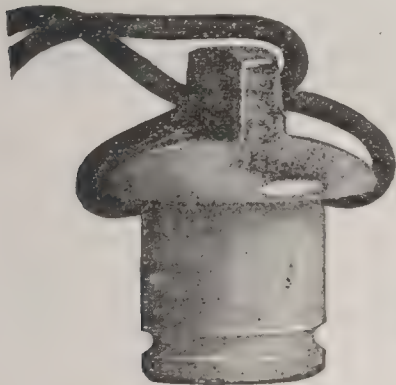
*No. 60666.

List No.		Std. Pkg.	Price Each
35000	Edison Base Pendant Pull Socket, 1/8 in. cap	100	\$0 60
35001	" " " " " 3/8 " "	50	66
35002	T.-H., " " " " 1/8 " "	100	60
35003	" " " " " 3/8 " "	50	66
35004	West. " " " " 1/8 " "	50	60
35005	" " " " " 3/8 " "	50	66

Weatherproof.

Sockets with wire extensions are fitted with 12 inches of stranded rubber covered wire. Longer leads special to order.

Edison Base.



*No. 50997.

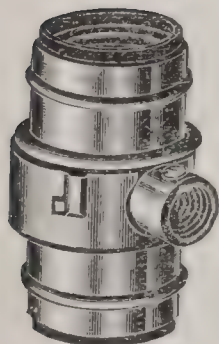


*No. 9448.

List No.		Std. Pkg.	Price Each
9366	Porcelain weatherproof socket.	250	\$0 25
60666	Composition moulded material	250	60
50997	Porcelain weatherproof socket with extended top and lead wires.....	250	50
9448	Weatherproof bracket socket for 1/8 inch pipe.....	100	60
9461	Mfrs. No. 9496. Weatherproof bracket socket for 3/8 in. pipe	100	60
9409	Soft rubber ring for weatherproof sockets. Not shipped unless ordered. Special, per 100.....		3 50

Twin Fixture or Show Window Socket.

Adapted particularly for show window lighting. Same size as standard socket, and requires half the number of taps and connections. Gives the same lighting effect with one-half the number of openings and nipples. Edison base only.

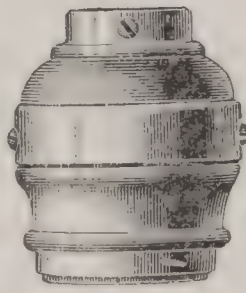


List No. 11132.

List No.		Price.
11132	Twin socket only, Edison base multiple.....each,	\$0 70
11133	" " " " series.....	75
11134	" " with flange, Edison base multiple.....	85
11135	" " " " series.....	90

Flange is polished brass with 1 inch nipple.

Sockets for 500 Volt Circuits.



List No.		Std. Pkg.	Price
50701	Keyless Socket, with Aluminum shell, 1/2 in. pipe	50	\$0 70
25709	" " " " " 3/8 " "	50	70
50702	" " " Brass " 1/2 " "	50	70
25710	" " " " " 3/8 " "	50	70
32440	" " " Aluminum " 1/2 " "	50	50
32441	" " " " " 3/4 " "	50	50
32442	" " " Brass " 1/2 " "	50	50
32443	" " " " " 3/8 " "	50	50

MOULDED MICA WEATHERPROOF SOCKETS



No. 6432.



No. 6443.

Mica Pendant Sockets.

For 125 Volts or Less.

For use in Street Decorations, Parks, Domes, Paper Mills, Breweries, Laundries, Tunnels and other damp places.

List No.	Price.
6432 Edison base, 6 in. leads..	\$0 36
6441 T.-H. " 6 " " "	40
6442 West. " 6 " " "	40
6443 Edison base with groove for attaching shade holder	35



No. 6430.



No. 11485.

Bracket Fixture Sockets.

Bracket Sockets are made with wires inside or outside of pipe.

List No.	Price Each.
6430 Edison base bracket for 1/8 in. pipe, inside wires	\$0 60
11484 Edison base bracket for 3/8 in. pipe, inside wires.	60
11485 Edison base bracket for 1/8 in. pipe, outside wires	60
11486 Edison base bracket for 3/8 in. pipe, outside wires	60

T.-H. base sockets can be furnished when specified at same prices.



No. 6437.



No. 6435.

Mica Wall Socket and Plug.

List No.	Price Each.
6435 Edison base wall socket.	\$0 60
6436 Thomson-Houston wall socket.....	60
6437 Edison extension plug, 6 in. leads.....	44
6438 T.-H. extension plug, 6 in. leads.....	44

Standard length of lead wires on sockets and plugs is 6 inches. Longer wires up to 10 feet at special prices.



List No. 35006.

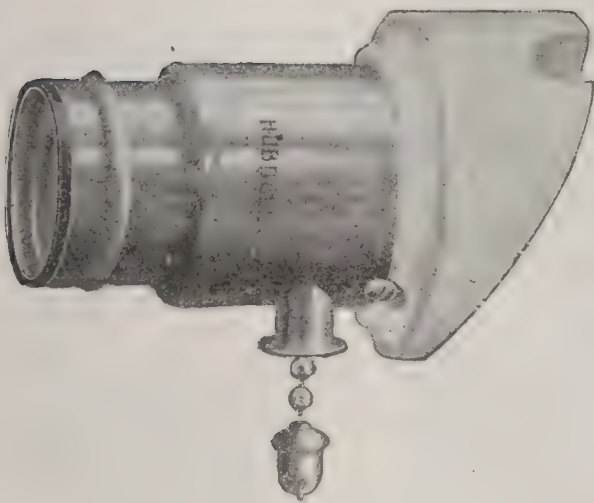
Pull Wall Receptacle.

Fibre Lined, 250 Volts, Porcelain Base.

Standard length of chain 8 inches. Special length 10c. per foot extra.

List No.		Std. Pkg.	Price Each.
35006	Edison base pull wall socket.....	25	\$0 70
35007	T.-H. " " " "	25	70
35008	West. " " " "	25	70

The porcelain base is adapted for both cleat and concealed work.



Pull Wall Receptacle.

Concealed Brass Base.

List No.		Std. Pkg.	Price Each.
35028	Pull Receptacle, concealed base....	25	\$0 75

Pull Angle Wall Receptacle.

Fibre Lined, 250 Volts.

Standard length of chain 8 inches.

List No.		Std. Pkg.	Price Each.
35021	Edison base.....	25	\$0 70



List No. 35009.

Pull Rosette Receptacle.

K. W. Base, Fibre Lined, 250 Volts.

Standard length of chain 8 inches.

When chains longer than 8 inches are required, special adjustment of socket mechanism is necessary and should be ordered special.

List No.		Std. Pkg.	Price Each.
35009	Edison concealed.....	20	\$1 10
35010	" cleat.. ..	20	1 10
35011	" square moulding.....	20	1 10
35018	" combination.....	20	1 10

T.-H. or Westinghouse bases at same price.

STANDARD RECEPTACLES.

Wall Receptacle, Fibre Lined.

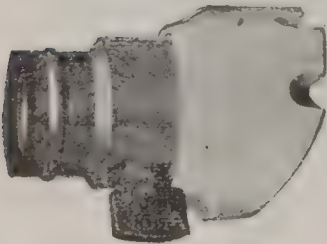
For 250 Volts.



No. 9184.

List No.		Standard Package	Price each.
9184	Edison base key wall receptacle.....	250.....	\$0 44
9185	" " keyless wall receptacle.....	250.....	40
50735	T.-H. " key " ".....	250.....	44
50736	" " keyless " ".....	100.....	40
865	West. " key " ".....	100.....	44
866	" " keyless " ".....	50.....	40

For 2¼ inch attached shade holders on any of the above receptacles add 6 cents each. For 3¼ inch shade holders add 14 cents each to list price.



No. 50753.

Angle Base Receptacles, Fibre Lined.

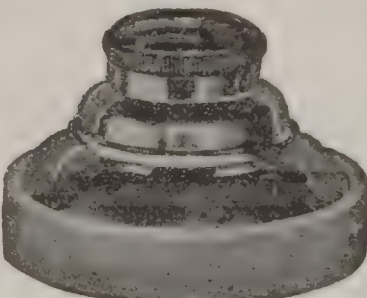
For 250 Volts.

List No.		Stand. Pkg.	Price each.
50753	Edison base, key angle base receptacle.....	100.....	\$0 55
50755	" " keyless angle base receptacle.....	100.....	50

For 2¼ inch attached shade holders on angle base receptacle shells add 6 cents each to list price. For 3¼ inch add 14 cents each.



No. 50783.



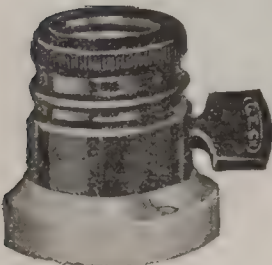
No. 50784.

Fused Wall Receptacles, Fibre Lined.

For 250 Volts.

EDISON BASE.

List No.		Std. Price Pkg. Each.
50783	Key receptacle, with double pole fuse.....	250 \$0 60
50784	Keyless receptacle, with double pole fuse.....	250 55



No. 50747.



Nos. 50745 and 50786

Removable Ring Wall Receptacles, Fibre Lined.

For 250 Volts.

EDISON BASE.



No. 50785.



No. 50723.

List No.		Std. Price Pkg. Each.
50747	Key receptacle with porcelain base.....	250 \$0 44
50745	Keyless receptacle slotted, with por. base	250 30
50786	" " " choc. " " 250	30
50785	" (large) with concealed base.....	100 45
50723	" for concealed work, por. base...	100 30
50797	" same design as No. 50723 with nickel-plated shell for switch-boards.....	100 35
50798	" same with black oxidized shell..	100 30
50748	Key receptacle with concealed base.....	250 44
50746	Keyless receptacle with concealed base...	250 40



No. 50748.



No. 50746.

PORCELAIN RECEPTACLES

Edison Base—Keyless.

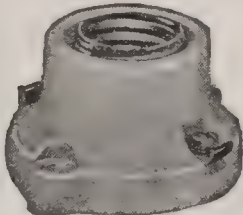
For 250 Volts.

Std. Pkg. Price Each.

List No.		Std. Pkg.	Price Each.
9171	Keyless receptacles, porcelain, with outside connections and centre screw hole in base.....	500	\$0 10
50757	Keyless receptacle, similar to 9171, but having copper screw shell.....	250	20
9402	Keyless receptacle, porcelain, with outside connections, base diameter 2 ⁵ / ₈ inch.....	500	15
50715	Keyless receptacle, porcelain, with outside connections, base diameter 2 inches	500	15
9403	Keyless receptacle, porcelain, with outside connections and adapted for shade holder.....	250	25
11695	Mfrs. No. 11221. Keyless receptacle, with spring centre contact, similar to 9171.....	500	20
9394	Keyless receptacle, porcelain, with outside connections with removable ring.....	2 50	20
50789	Keyless receptacle, porcelain ring and base for moulding work, will take shade holder..	100	40
9514	Keyless porcelain flush pocket receptacle	250	30
9396	Keyless receptacle, porcelain, combination for cleat or concealed work.....	250	40
9397	Keyless interior conduit receptacle, without socket ring....	250	20
50716	Keyless porcelain receptacle for temporary work.....	500	18
50717	Keyless porcelain receptacle for concealed or moulding work..	250	25
50744	Keyless receptacle, for concealed work, with porcelain shell and removable ring. Will take shade holder.....	100	30



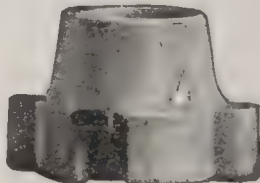
Nos. 9171 and 50757.



*Nos. 9402 and 50715.



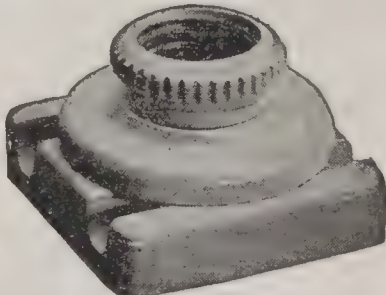
*No. 9403.



No. 11695.



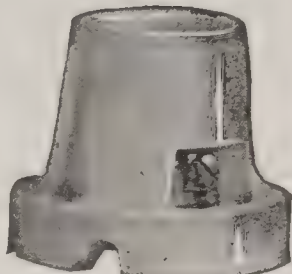
No. 9394.



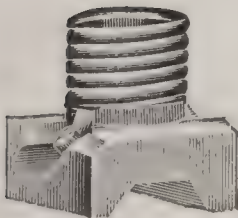
No. 50789.



No. 9514.



No. 9396.



No. 9397.



No. 50716.



No. 50717.



No. 50744.

* Indicates that T.-H. or Westinghouse base can be furnished, but must be specified on order.

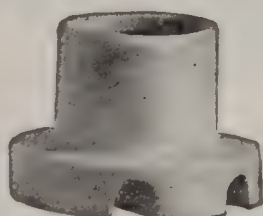
RECEPTACLES.

Edison Base—Sign Receptacles.

For 250 Volts.



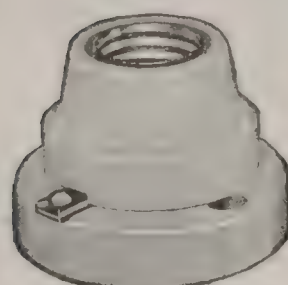
No. 50782.



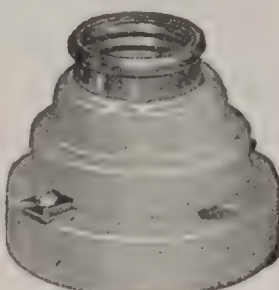
No. 50899.

List No.		Std. Pkg.	Price Each.
50782	Keyless receptacle for sign work, skirt 1½ inches long.....	100	\$0 25
50899	Keyless receptacle for sign work, skirt 1 inch long.....	100	25

K. W. Rosette Receptacles.



*No. 9404.



*No. 9405.

List No.		Std. Pkg.	Price Each.
9404	Keyless receptacle for concealed work	50	\$0 40
11696	Mfrs. No. 9434 Keyless receptacle for cleat work.....	50	40
11697	Mfrs. No. 9435. Keyless receptacle for moulding work.....	50	40

K. W. Rosette Shade Holder Receptacles.



*No. 50729.

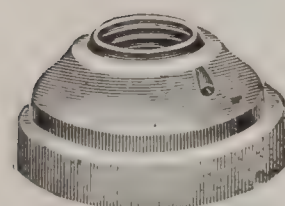


*No. 50732.

List No.		Std. Pkg.	Price Each.
9405	Keyless receptacle for concealed work	50	\$0 50
11698	Mfrs. No. 9436. Keyless receptacle for cleat work.....	50	50
11699	Mfrs. No. 9437. Keyless receptacle for moulding work.....	50	50

K. W. Rosette Socket Receptacles.

Fibre Lined, for 250 Volts.



No. 9401.



No. 9447.

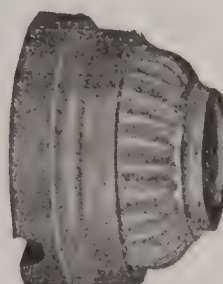
List No.		Std. Pkg.	Price Each.
50729	Key receptacle for concealed work....	100	\$0 60
50730	" " " cleat work.....	100	60
50731	" " " square, for moulding...	100	60
50732	Keyless receptacle for concealed work	50	55
50733	" " " cleat work.....	50	55
50734	" " " moulding work	50	55

For 2¼ inch attached shade holders on socket receptacle shells add 6 cents each to list price. For 3¼ in. add 14 cents.

K. W. Rosette Angle Receptacles.



*No. 9406



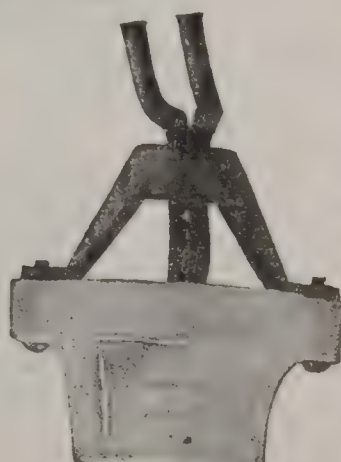
No. 50752.

List No.		Std. Pkg.	Price Each.
9406	Keyless receptacle for concealed work	50	\$0 80
11700	Mfrs. No. 9438. Keyless receptacle for cleat work.....	50	80
11701	Mfrs. No. 9439. Keyless receptacle for moulding work.....	50	80

Porcelain Receptacles, Fused.



*No. 25706.



*No. 25707.

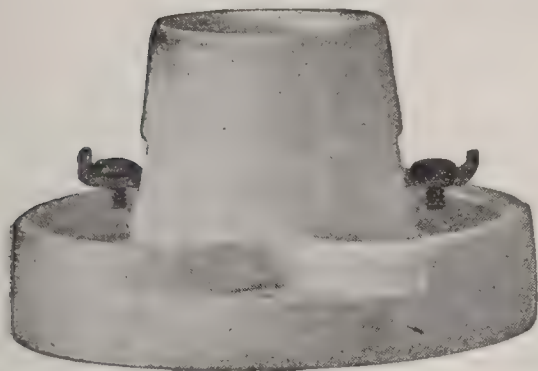
List No.		Std. Pkg.	Price Each.
9401	Keyless receptacle, porcelain, with single pole fuse.....	100	\$0 40
9447	Keyless receptacle, porc'l'n, with double pole fuse.....	100	45
50752	Keyless receptacle, porcelain, for cleat or concealed work, double pole fuse, 3 amperes.....	100	45

Porcelain Street Hood Receptacles.

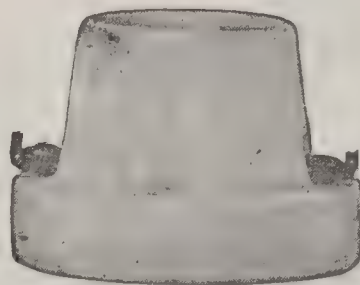
List No.		Std. Pkg.	Price Each.
25706	Receptacle with iron yoke and outside connections	100	\$0 27
25707	Receptacle with iron yoke and leads perpendicular to base.....	100	44

*Indicates that T.-H. or Westinghouse Base can be furnished, but must be specified on order.

PORCELAIN RECEPTACLES.



No. 28794.



No. 28795.



No. 30599.

No. 28794 is a weatherproof wall receptacle having a large porcelain base with a special collar, making it weatherproof and suitable for out-door installations. Wall receptacle No. 28795 is fitted with a spring center contact, and is so designed that the contact punchings rest directly on the porcelain base. In connection with illuminated sign work, where space is an important factor, No. 30599 will be found to readily adapt itself.



*No. 9408.

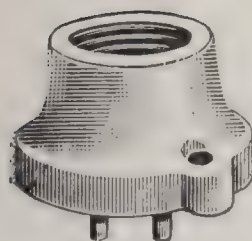


*No. 9407

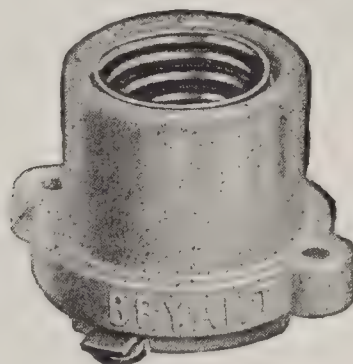
List No.		Std. Pkg.	Price.
28794	Edison base keyless weatherproof wall receptacle.....	250	\$0 20
28795	Edison base, keyless porcelain wall receptacle....	500	15
30599	Edison base, porcelain sign receptacle	500	20

Weatherproof Receptacles.

Edison Base.



*No. 9411.



No. 15374.

List No.		Std. Pkg.	Price Each
9407	Porcelain weatherproof receptacle with leads parallel to base.....	100	40
9408	Porcelain weatherproof receptacle with leads perpendicular to base..	100	40
9411	Porcelain weatherproof receptacle with leads perpendicular to base and lugs for base screws.....	100	35

15374	Above No. 1700. Pony Sign Receptacle. Edison Base.....	500	14
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No. 22754.



No. 22755.

Petticoat Weatherproof Socket.

This improved weatherproof socket is made on the principle of a petticoat insulator.

The petticoat part protects the lamp from being dimmed by falling rain and soot, at the same time making an excellent reflector.

It not only meets every requirement for out-door work, but it is espccially adapted for use in tunnels, mines or any damp place.

For 250 Volts.

List No.		Std. Pkg.	Price Each
22754	Edison base, pendant type.....	200	\$0 35
22755	" " bracket " 1/8 in. cap.	100	60
22756	" " " " 3/8 " "	100	60

T.-H. bases can be supplied if specified.

Standard length of lead wires, 12 inches. Longer wires at special prices.

FIELDING RECEPTACLES.

For Moulding Work.

Can be easily connected by stripping about $\frac{1}{2}$ inch of insulation from the wires and slipping them under set screws of the receptacle. The receptacle cover has square ends which makes it easy to fit moulding capping.

For 250 Volts.

List No.		Std. Pkg.	Price each.
50724	Edison base	250	\$0 25
11702	T-H. "	250	25

List No. 50724.

Shade Holder Type.

List No.		Std. Pkg.	Price each.
50726	Edison base	250	\$0 30
11703	T-H. "	250	30

Fielding Multiple Circuit Receptacle.

No. 50727 receptacle is designed for multiple circuit work. The cap is extra wide to cover 4 circuit mouldings. Used for theatre border lights, window lighting, etc.

For 250 Volts.

List No.		Std. Pkg.	Price each.
50727	Edison base	250	\$0 30

List No. 50726.

Fielding Cleat Receptacle.

For 250 Volts.

List No.		Std. Pkg.	Price each.
23210	Edison base.....	250	\$0 25
11704	T-H. "	250	25

Shade Holder Type.

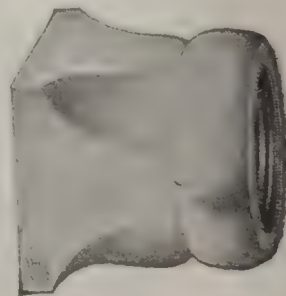
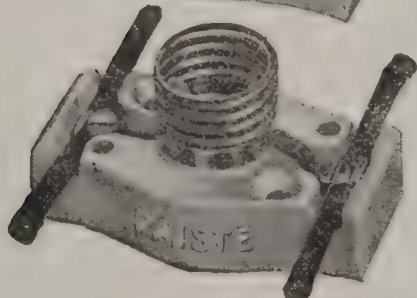
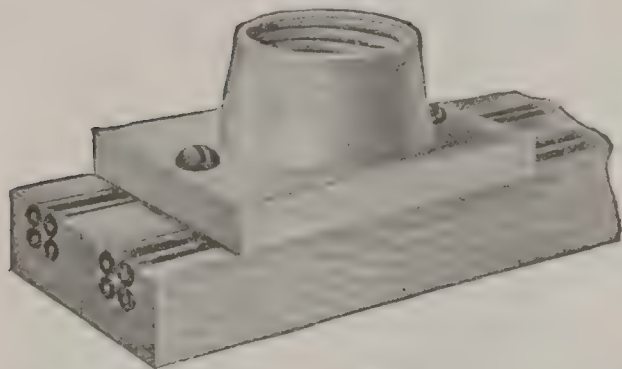
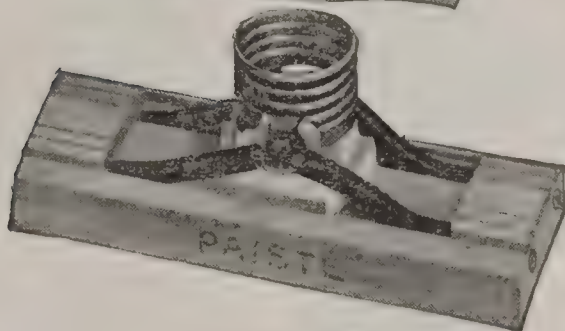
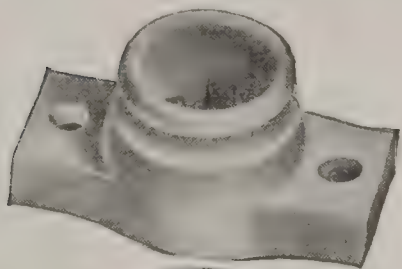
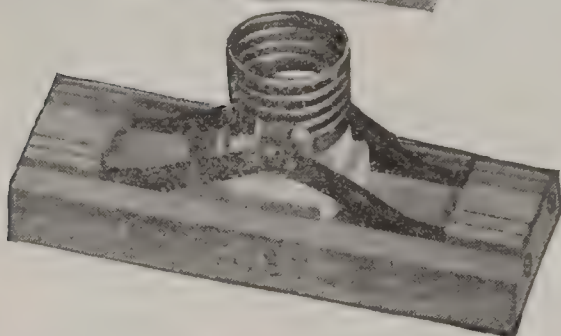
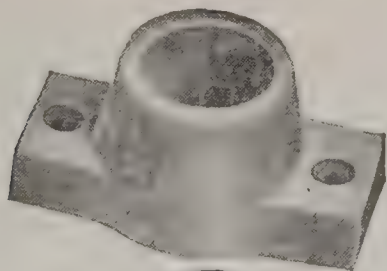
List No.		Std. Pkg.	Price each.
23209	Edison base.....	250	\$0 30
11705	T-H. "	250	30

Fielding Window Receptacle.

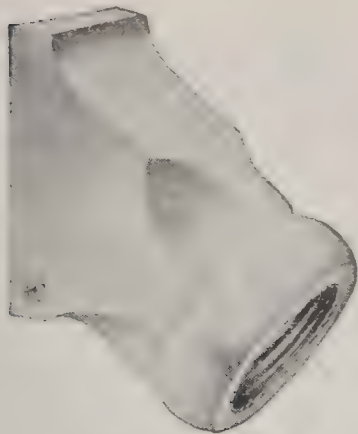
The very small size of these receptacles admit their being placed closely together without the appearance of crowding. They can be used with shade holders if so desired.

List No.	Std. Pkg.	Price each.
33581	Edison base...250	\$0 30

(Cut $\frac{1}{2}$ Size.)
List No. 33581.



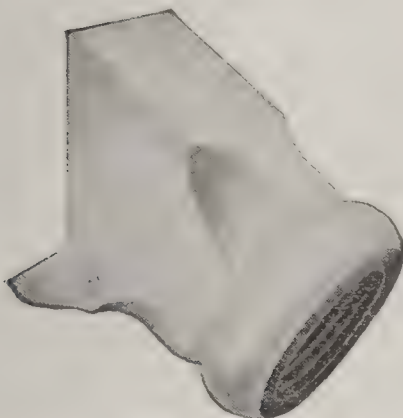
FIELDING ANGLE RECEPTACLES.



(Cut is 1/2 size.)
List No. 33582.

This style is adapted only for vertically-run molding. In connection with No. 34353 Receptacle shown below the entire window could be outlined if desired. Our Weather-proof Socket Shade Holder is adapted for use with these receptacles.

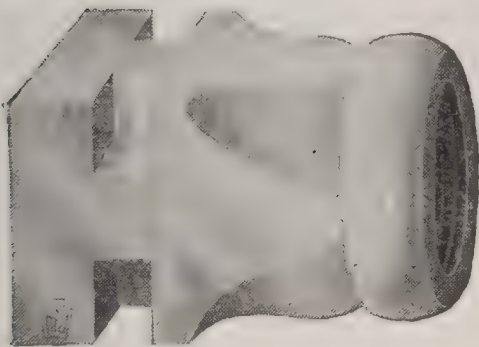
List No.		Std. Pkg.	Price.
33582	Edison Base.....	250	\$0 35



(Cut is 1/2 size.)
List No. 34353.

These receptacles hold the lamp at an angle of 60°. They are uniform with No. 33582 Receptacle, shown above, but are to be used with horizontally-run molding.

List No.		Std. Pkg.	Price.
34353	Edison Base.....	250	\$0 35

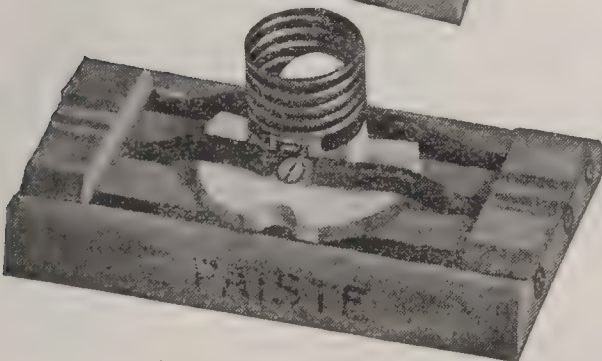
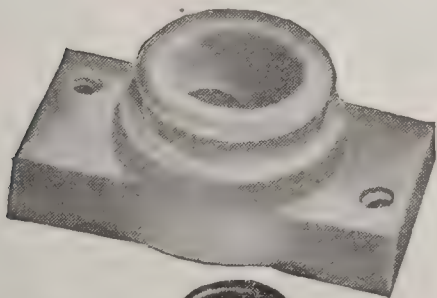


List No. 32959.

Fielding Border Light Receptacle.

This Receptacle, made on the Fielding principle, fastens to angle iron run for border and foot-lights.

List No.		Std. Pkg.	Price.
32959	Edison Base....	250	\$0 30



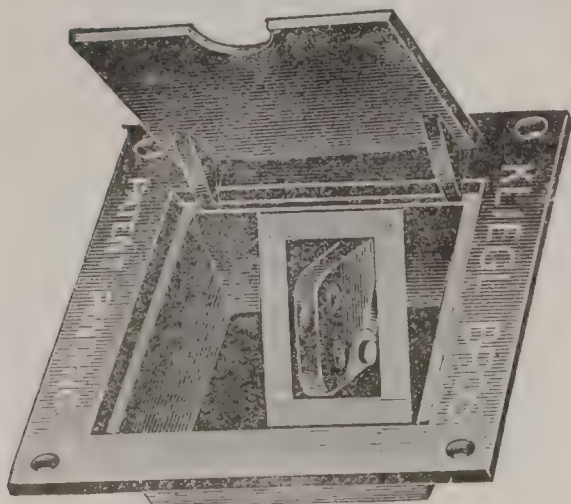
List No. 36519.

Fielding 3 Wire Moulding Receptacle.

These are wired alternately on Positive and Negative wires, yet lamp and cord openings remain central. Arranged for shade holder.

List No.		Std. Pkg.	Price.
36519	Fielding Receptacle, 3 wire moulding.....	250	\$0 35

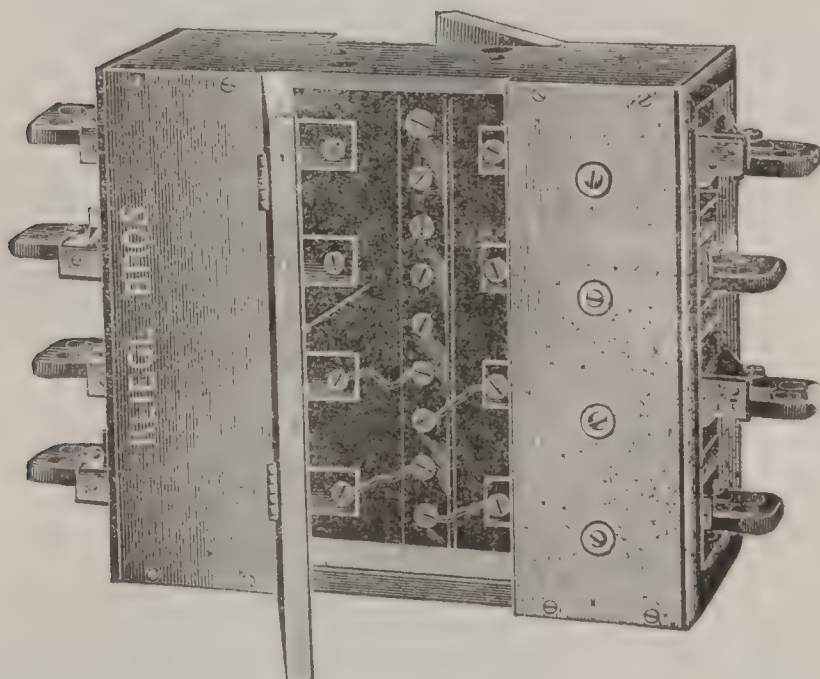
STAGE POCKETS AND PLUGS.



These Stage Pockets cannot get out of order, and the bottom being open will not hold foreign substances to produce short circuits. These boxes are installed in many New York theatres.

List No.	Price.
11488 Single pocket and plug, com.	\$14.00
11489 2-gang " " plugs, "	28.00
11490 3- " " " "	42.00
11491 4- " " " "	66.00
11492 Extra plug.....each,	3.00

PORTABLE STAGE OR SPIDER POCKETS.



EIGHT SECTION.

The only Portable Stage Pocket. All slate lined, absolutely fireproof. Each receptacle fused separately.

Made in two sections.

List No.	Price.
11493 2-section, com.	\$16.00
11494 4- " " "	32.00
11495 6- " " "	48.00
11496 8- " " "	64.00
11497 10- " " "	80.00
11498 Extra plugs, each,	3.00

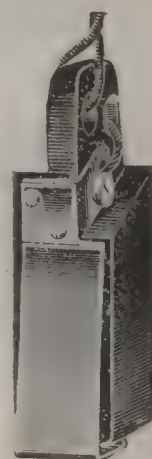
AUTOMOBILE CHARGING POCKET AND PLUG.



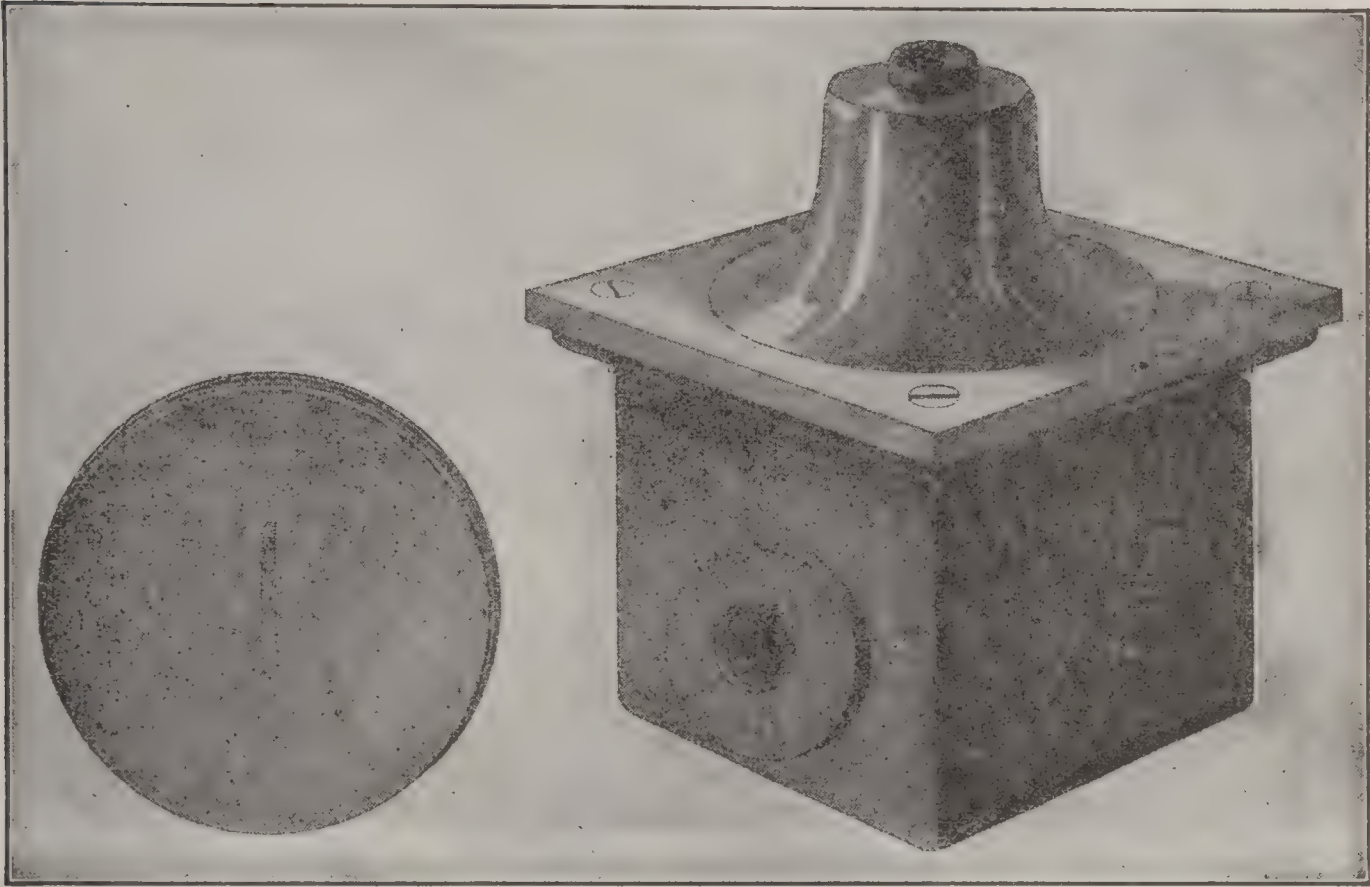
A strong, well-made Charging Pocket to attach to wall.

It has a capacity of 50 amperes

List No.	Price.
11499 Pocket and plug, com.	\$14.00
11500 Extra plug.....each,	1.50

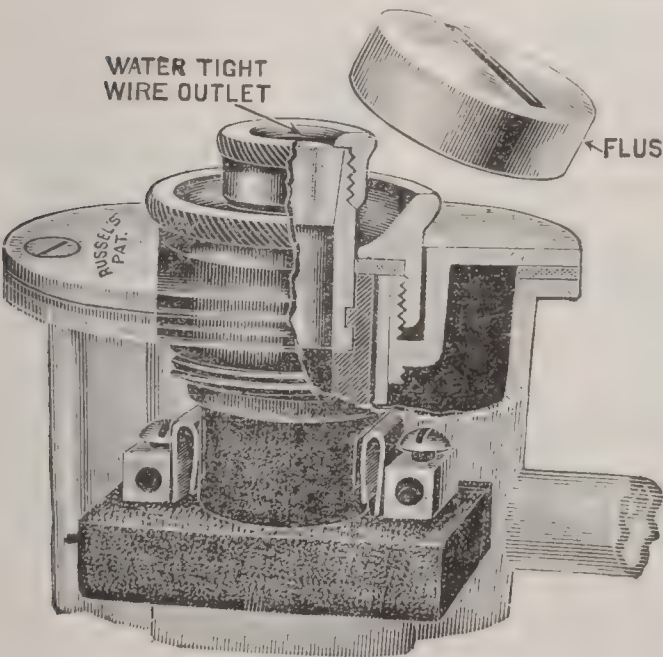


PRINGLE WATERPROOF RECEPTACLE
AND PLUG.



This receptacle is water and dust-proof and has two outlets drilled and tapped for $\frac{1}{2}$ inch pipe. The box has brass cover $3\frac{3}{4}$ inches square and can readily be set flush in wood, cement or tile floor. Caps can be threaded instead of bushing for pipe connection and box and lid can be used alone for junction box or for call and telephone systems.

List No.	Price.
11501 Waterproof receptacle, complete.....	each, \$6 50
11502 Box and lid only.....	3 55
11503 Plug only.....	1 10
11504 Cap only.....	1 25
11506 Rubber gaskets only.....	10



CUT $\frac{1}{2}$ SIZE.

WATER TIGHT FLOOR
RECEPTACLE.

This receptacle is very substantial and has a capacity of ten amperes. It is very easily wired and cable wires will not pull loose from plug. Plug will go in but one way, so polarity is never changed. Has brass top and lids.

List No.	Price.
11507 Receptacle complete.....	each, \$5 00
11508 Extra plug.....	" 1 50

WATERPROOF FLOOR RECEPTACLE BOX.



This box is provided with an adjustable cover, perfectly water and dust proof, and is designed to take Z and H and Manhattan Flush and other standard receptacles.

List No.	Mfrs. No.		Price.
15810		Complete with No. 257, Iron Base.....	\$4 40
15811		Complete without Iron Base	4 20
15812	250	Box Bottom, (Iron).....	1 50
15813	251	Floor Ring, (Brass).....	1 90
15814	252	Plain Cover, (Brass),	80
15815	253	Nozzle Outlet Cover, (Brass)	80
15816	254	1/2 inch Iron Pipe Cover, (Brass),	80
15817	255	3/4 inch Iron Pipe Cover, (Brass)	80
15818	256	1 inch Iron Pipe Cover, (Brass). "	80
15819	257	Cast iron Base for Holding Box Bottom	20

When ordering mention type of cover wanted.

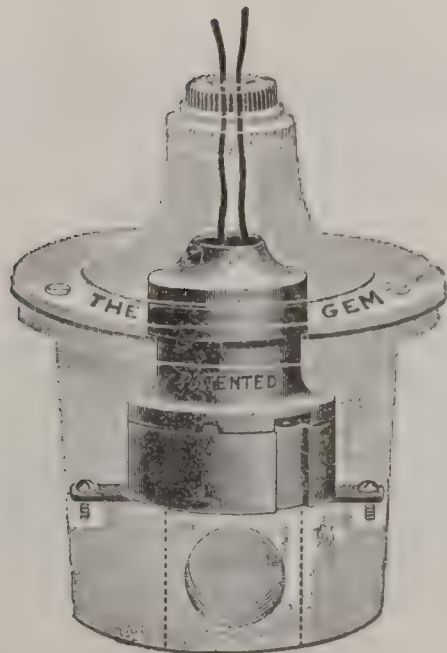
Fountain Floor Box.



This cut shows the box with brass cover and screw plug (A) complete. When ordering specify size and number of conduit holes, to be drilled or tapped. No extra charge is made for drilling or tapping holes in this box. A gasket is furnished with each cover.

3 5/8 inches diameter, 3 1/2 inches deep.

List No.	Mfrs. No.		Price.
15820	1000	Box Bottom (Iron).....	\$0 96
15821	1002	Brass Cover tapped for 1/2 inch Pipe.....	1 20
15822	1004	" " " " 1 " "	1 20
15823	1034	" " " " 3/4 " "	1 20
15824		Box complete, choice of Covers..	2 16



The Gem Watertight Floor Receptacle Box.

The Gem is the most compact watertight floor receptacle box manufactured.

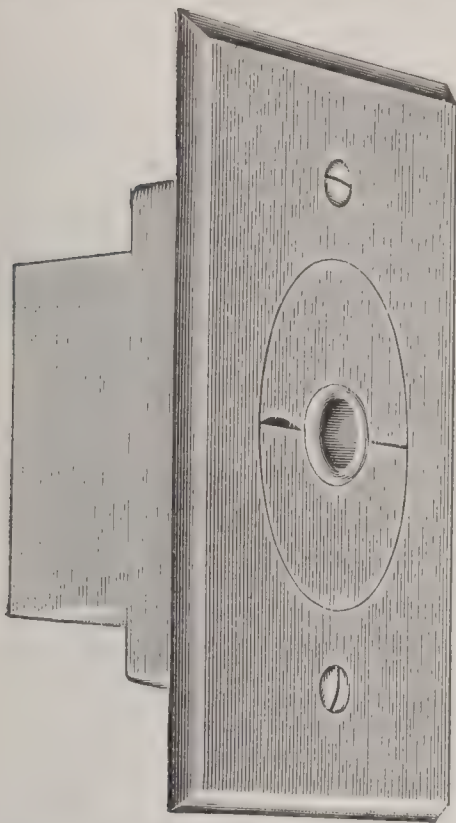
Dimensions: Floor flange, 3 5/8 inches diameter. Depth over all, 2 7/8 inches.

Conduit holes drilled as required.

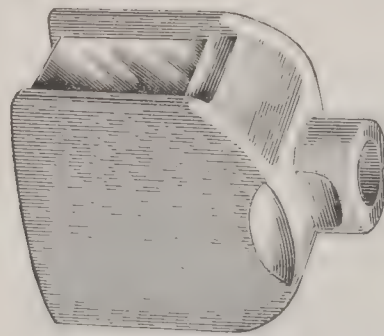
Price includes receptacle and flat plate.

List No.		Price.
15830	Receptacle and Box complete	\$4 00

MANHATTAN FLUSH PLUG RECEPTACLES.



List No. 6530.
Receptacle with Screws in Plate.



List No. 6532.
Plug only.

The Manhattan Receptacles and Plugs have new and distinctive features of design and arrangement which places them in the highest grade for efficiency and appearance. The body of the Receptacle and Plug is made of the best vitrified porcelain. Both pieces are liberally proportioned and strong to withstand severe usage. The face plate is entirely flush when the plug is in or out of the Receptacle. The small doors have a spring attachment which holds them either open or closed under tension. The plates are furnished with or without screw holes, as desired. The latter have projections on the inside for attaching to the Receptacle. The contact surface is extra large and arranged to avoid the possibility of a short circuit or ground while inserting the plug.

List No.		Price.
6530	Receptacle, Plug and Plate for screws.....each,	\$1 85
6533	“ “ “ “ without screw holes “	1 85
6531	Receptacle only with Plate, no Plug.....	1 35
6532	Plug only.....	50
11510	Plate only, with screw holes.....	1 00
11511	“ “ without “	1 00

Receptacles made in gangs on special order.

Iron receptacle box listed on page 598 is made specially for Manhattan and Z. and H. Flush Plug Receptacles and Manhattan Push Button Switch.

“Diamond H” Flush Receptacle and Plug.

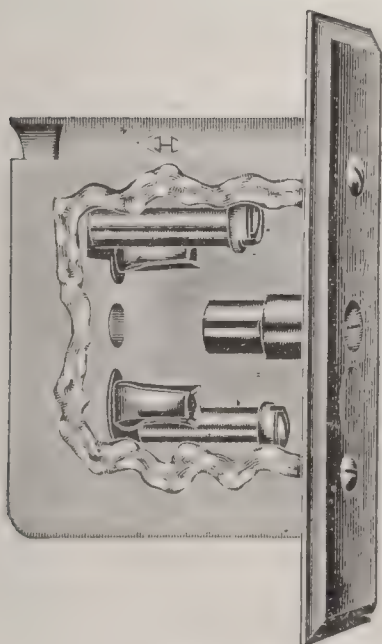
It is not necessary to open the shutter for the insertion of the plug, as it is automatically operated by the plug. The shutter cannot be left open, as it closes automatically upon removal of the plug.

The circles near center of plate indicate the closed apertures for the contact pins carried by the plug.

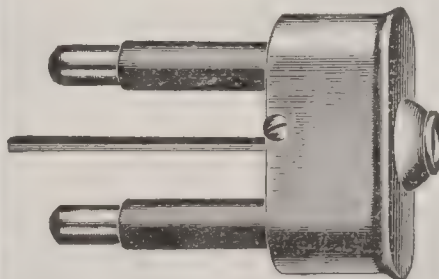
The pilot pin in the center of the plug is inserted in the slotted hole in the face plate. The plug is then pushed in until the contact pins carried by the plug, engage the contact clips in the body of the receptacle. The shutter which closes the holes in the face plate is automatically operated by the pilot pin.

They fit standard wall appliances made for push button switches.

The porcelain body of the plug is encased in a finished steel shell, which prevents accidental breakage. It is impossible to produce a short circuit or a ground by the insertion of the plug.



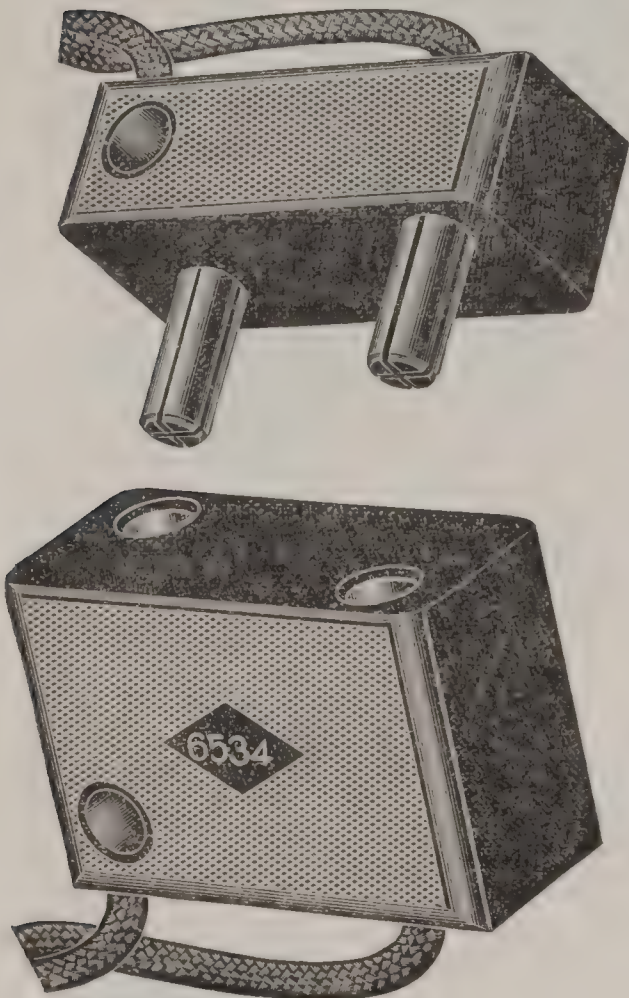
Receptacle.



Plug.

List No.		Price.
11514	Receptacle and Plug, complete.....each,	\$2 20
11515	Plate only.....	90
11516	Plug only.....	60
11517	Receptacle, without Plate and Plug.....	70

MESCO SPECIAL CONNECTORS.



List No. 6534.

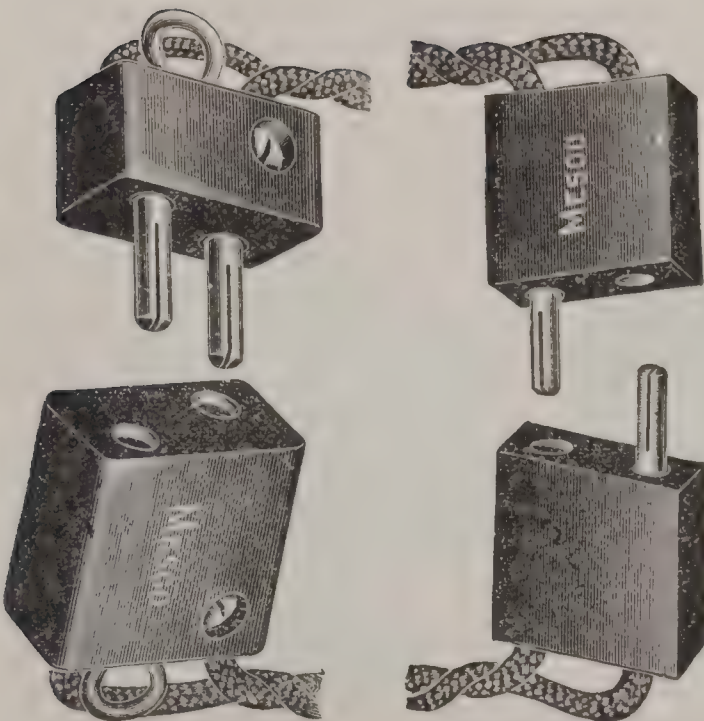
These Connectors are very convenient for connections which have to be made and unmade frequently and rapidly. Therefore they are well adapted for theatrical work, for storage battery connections in electric vehicles, for trailer light coupling on electric railways, and for large chandeliers in churches and theatres. No. 6534 is made in accordance with the Underwriters' requirements and will carry 25 amperes safely on 125 volt circuits.

List No.	Price.
6534 Special Connectors, large size....	\$1 50

Medium.

No. 6535 is made to carry 15 amperes and is very convenient for connecting portables, fans, small motors, etc.

List No.	Price.
6535 Special Connector, medium size, complete	\$1 00



List No. 6535.

List No. 6536.

Small.

No. 6536 is very handy for storage batteries or other circuits on which very heavy currents are not used.

List No.	Price.
6536 Special Connectors, small size, complete.....	\$0 70

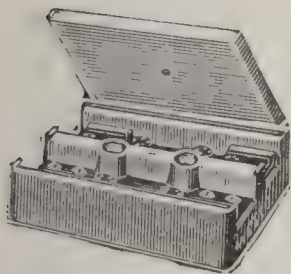
MAIN AND BRANCH CUT-OUTS, COVERED.

Main Line.

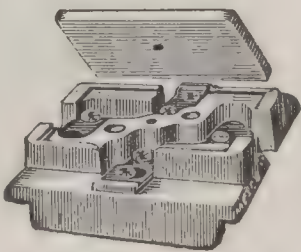
List No.		Std. Pkg.	Price.
938	15 Amperes..	250	\$0.24
939	25 " ..	250	.38
940	50 " ..	100	.80
941	100 " ..	50	1.30

Branch.

List No.		Std. Pkg.	Price.
942	15 Amperes ..	250	\$0.24
943	25 " ..	250	.38
944	50 " ..	50	1.00



List No. 938.

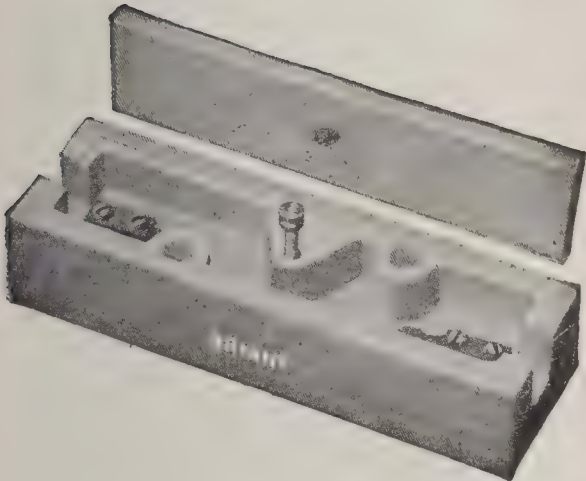


List No. 942.

500 VOLT CUT-OUTS.

Single Pole.

List No.		Std. Pkg.	Price.
957	25 Amperes....	100	\$0.50
1400	50 "	50	.80
945	100 "	25	1.20



List No. 957.

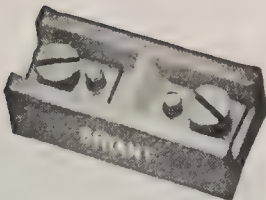
FIXTURE CUT-OUTS.



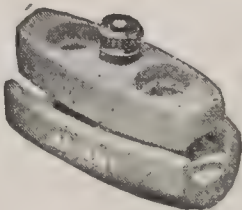
List No. 11520.



List No. 11521.



List No. 11523.

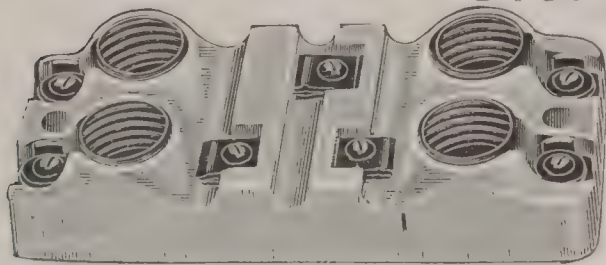


List No. 11524.

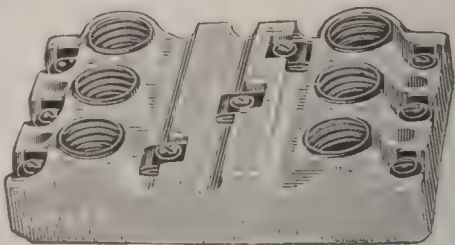
List No.	Mfrs. No.		Std. Pkg.	Price each.
11520	900	Straight Bug Cut-out.....	100	\$0.10
11521	901	Quadrant " "	100	.10
11523	902	Single " "	100	.08
11524	1106	Two-piece Bug Cut-out.....	250	.18

EDISON PLUG CUT-OUTS.

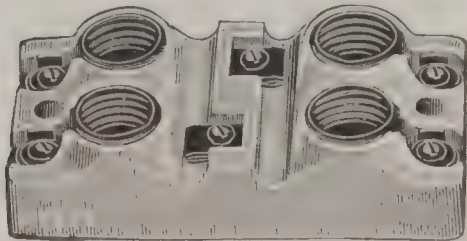
For 125 Volt Circuits.



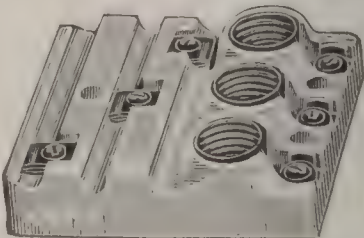
List No. 62199.



List No. 62135.



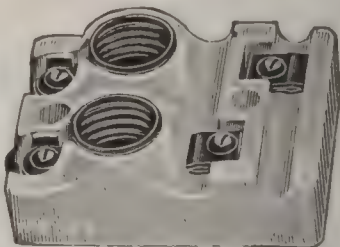
List No. 62587.



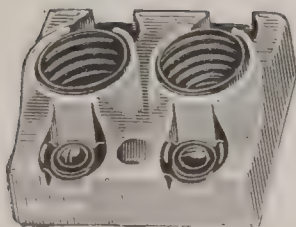
List No. 8042.



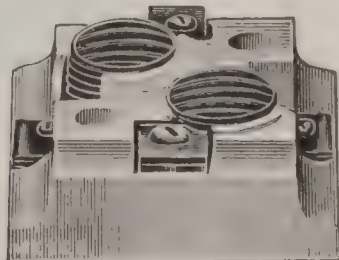
List No. 62165.



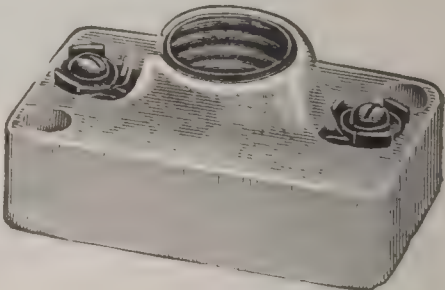
List No. 61935.



List No. 62965.



List No. 8020.



List No. 62569.

List No.		Stand. Pkg.	Price.
62587	D. P. Double Branch.....	100	\$0 62
62199	3 to 2 Wire, Double Branch.....	100	64
62165	3 Wire, Main.....	100	44
62135	3 " Double Branch	50	90
62965	Double Pole, Main.....	150	30
8042	3 Wire, Single Branch.....	75	54
61935	D. P. Single Branch.....	100	32
62569	S. P. Main	150	18
8020	Double Pole, Single or Double over Branch.....	150	30

MICA TOP-FUSE PLUGS FOR USE WITH PLUG CUT-OUTS.



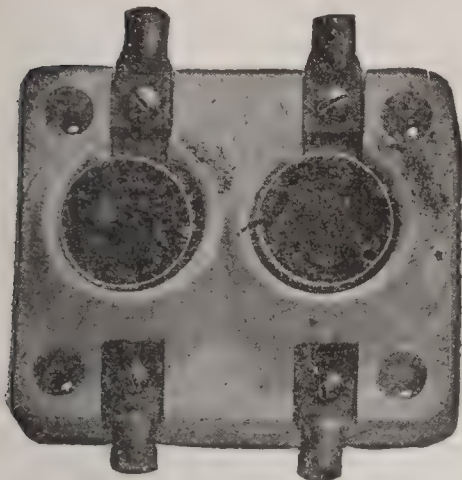
List No. 66327.
(Porcelain.)

List No.	Normal Capacity	Stand. Pkg.	Price.	List No.	Normal Capacity	Stand. Pkg.	Price.
66327....	3 Amperes.....	500.....	\$0 07	66335....	15 Amperes.....	500.....	\$0 07
66329....	6 "	500.....	07	66337....	20 "	500.....	07
66331....	10 "	500.....	07	66339....	25 "	500.....	07
66333....	12 "	500.....	07	66341....	30 "	500.....	07

Brass Cap Fuse Plugs one cent advance on above list.

250 VOLT PLUG CUT-OUTS.

60 Ampere.



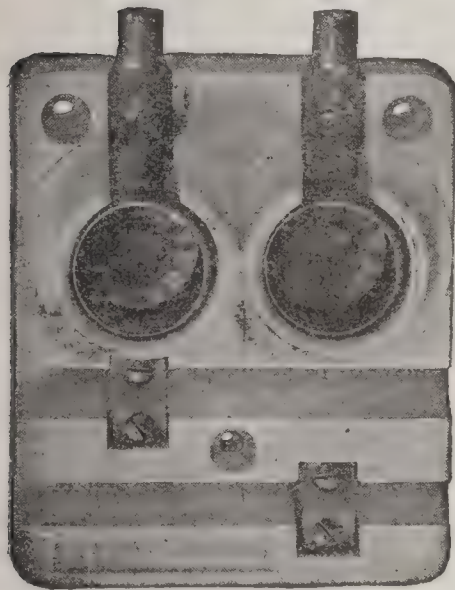
List No. 10975.

The screw shell is of the same general design as that of the smaller cut-outs, but is slightly deeper and has a greater diameter.

These cut-outs are perfectly adapted to the protection of circuits having a maximum current of 60 amperes, and a maximum potential of 250 volts.

Renewable Fuse Plugs for these cut-outs are listed on page 443.

List No.		Std. Pkg	Price.
10975	Double Pole, main line.....	50	\$1 50
10976	Triple Pole, " ".....	50	2 25
10977	Double Pole, single branch.....	50	1 75
10978	Triple Pole, " ".....	50	3 00



List No. 10977.

Cartridge Fuse Plugs.

For use with the above cut-outs.

List No.		Price.
16270	250 Volts, 35 to 75 Amperes, complete with fuses	\$0 75
16271	" " " " " without fuses.....	50

Fuses Only.

List No.		Std. Pkg.	Price.
10979	35 Ampere.....	50	\$0 25
10980	40 ".....	50	25
10981	50 ".....	50	25
10982	60 ".....	50	25
10983	65 ".....	50	25
10984	75 ".....	50	25

Cartridge Fuse Plugs.

For use with 250 Volt Cut-outs.

List No.		Std. Pkg.	Price.
16272	Complete with 35 to 75 Ampere Fuse.....	50	\$0 75
16273	Without Fuse.....	50	50

Cartridge Fuses Only.

List No.		Std. Pkg.	Price.
16120	35 Amperes.....	50	\$0 25
16121	40 ".....	50	25
16122	45 ".....	50	25
16123	50 ".....	50	25
16124	55 ".....	50	25
16125	60 ".....	50	25
16126	65 ".....	50	25
16127	70 ".....	50	25
16128	75 ".....	50	25

Multiple Lamp Hanger Board.



List No. 11708.

Arranged for Edison Fuse Plugs which Renders the Several Lamps in a Circuit Independent of Each Other.

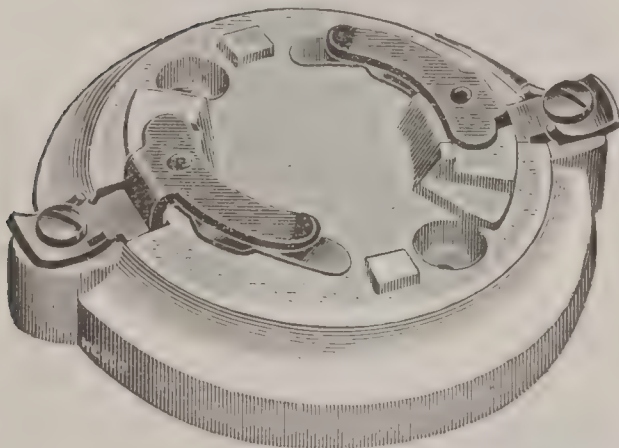
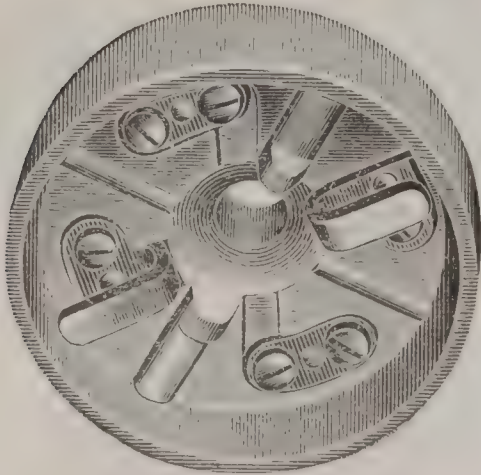
The Lamp Hook is supported by a spiral spring which reduces vibration to a minimum. It is provided with special terminals for connecting a pendant switch.

Regular type is for concealed wiring but can be furnished for cleat work when specified.

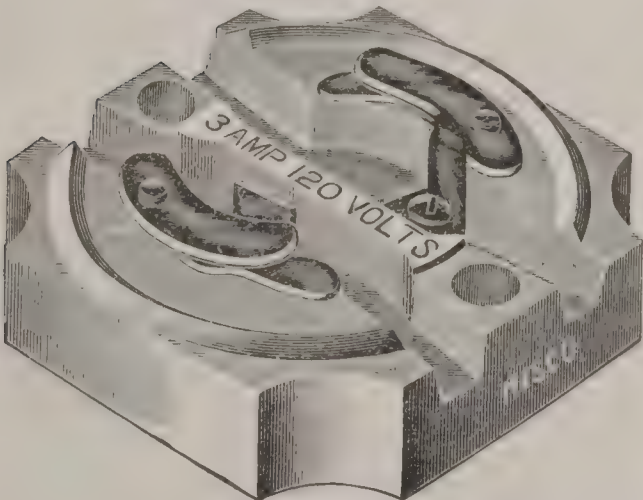
List No.		Price.
11708	Multiple Ceiling Board, without Fuse Plugs, each	\$1 25
11709	Wooden Sub-base, for use with No. 11708, each....	60

MANHATTAN CEILING ROSETTES.

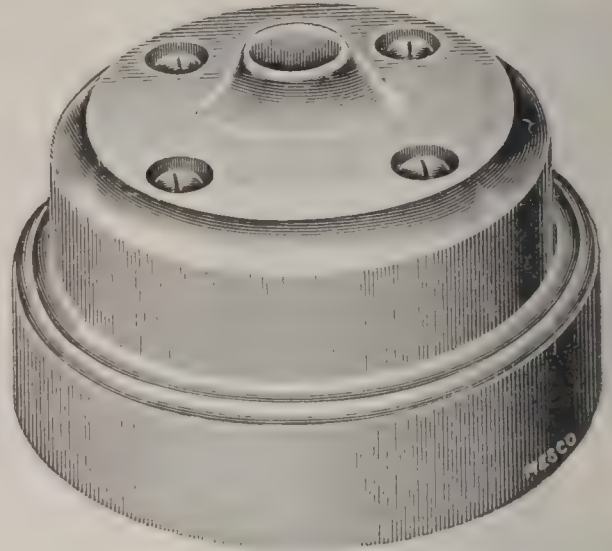
STANDARD SIZE.



List No. 6561.
Cleat Rosette Open.



List No. 6560.
Moulding Rosette.



List No. 6562.
Concealed Rosette Closed.

Is made in accordance with
Underwriters.

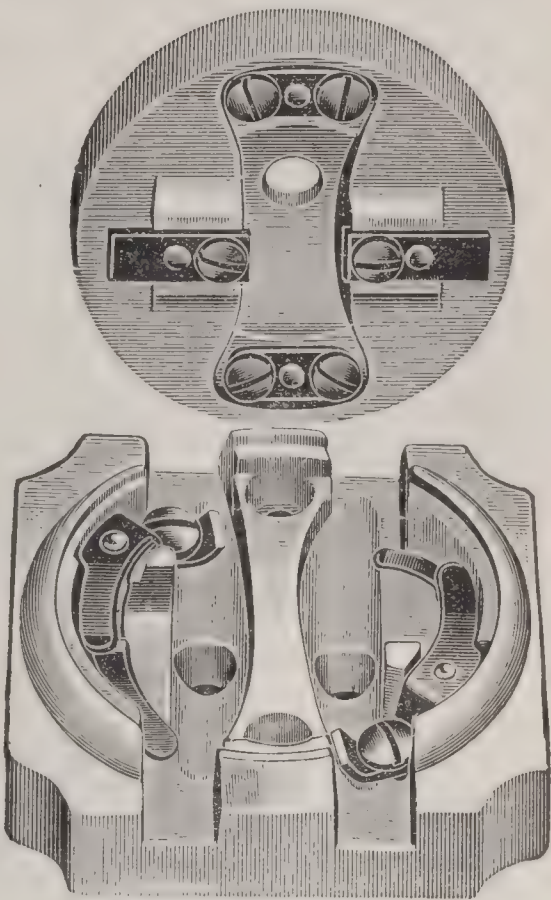
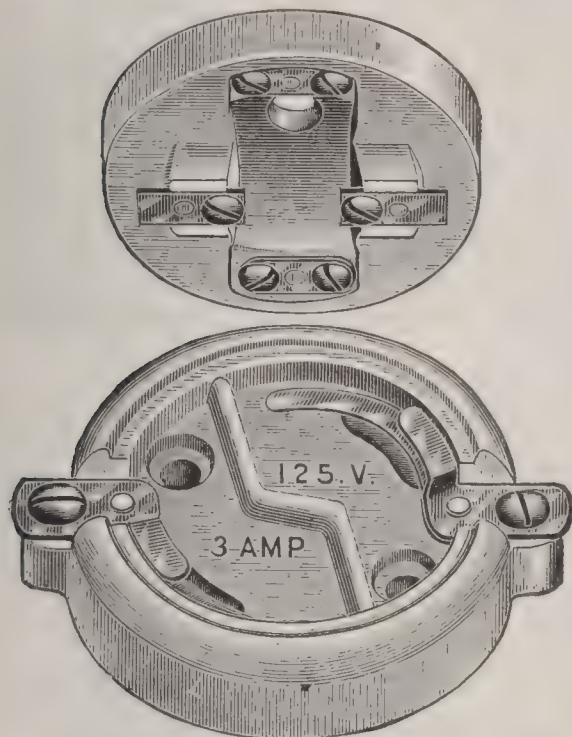
The "Manhattan" Rosette has liberal contact surface and fuse space. The spring clamping attachment for holding the cap to the base is a special feature which makes it a popular rosette with both contractor and user. The brass clips on the inside of cap are inserted between the brass extension of the contact plates and the extended spring, the end of which rests on the porcelain base. When the clips reach a small groove arranged in the lower spring it allows this spring to resume its position against the brass extension, which holds the clips rigidly in place. The cap cannot be jarred or shaken loose.

The best vitreous glazed porcelain is used and all of the parts are carefully constructed and assembled.

List No.	For 120 Volts.	Stand. Price	
		Pkg.	Each.
6560	Moulding, square base,	250	\$0.26
6561	Cleat, round base.....	250	.26
6562	Concealed, round base,	250	.26

MANHATTAN PONY ROSETTES.

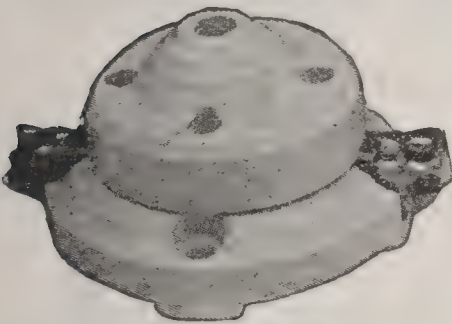
These Rosettes are constructed on the same general principle as the standard size described on previous page, and the cap fastening is equally effective. The porcelain cap and base are somewhat smaller, but we have retained a liberal contact surface and fuse space. They are neat, compact and reliable.



List No.		For 125 Volts.	Price.
6565	Cleat Rosette, Round Base.....		each, \$0 16
6566	Moulding " Square "		" 16
6567	Concealed " Round "		" 16

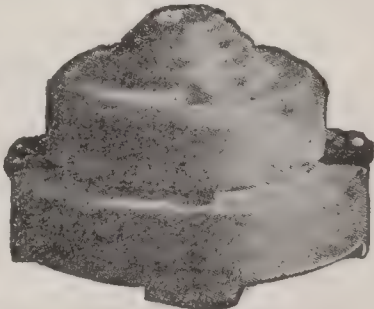
K. W. ROSETTES.

All K. W. Caps are interchangeable and will fit any base.
For 125 Volt work.



List No. 11535.

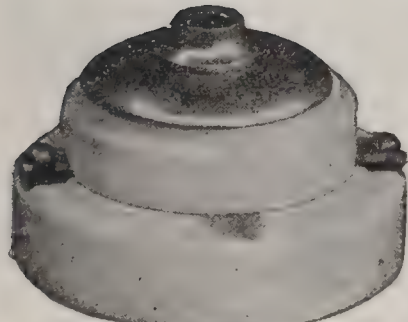
List No.	Mfrs. No.	Price Each.
11534	870	Cleat with Cast Lugs, Std. Pkg. 250 \$0 28
11535	950	Cleat with Stamped Lugs. Std. Pkg. 250.. 29
11536	871	Concealed Base. Std. Pkg. 250..... 28
11537	872	Combinat'n Concealed or Moulding, Round Base. Std. Pkg. 250.. 28
11538	926	Moulding Square Base Std. Pkg. 250..... 28



List No. 11536.

BRACKET ROSETTE CUT-OUT.

With Brass Cap.

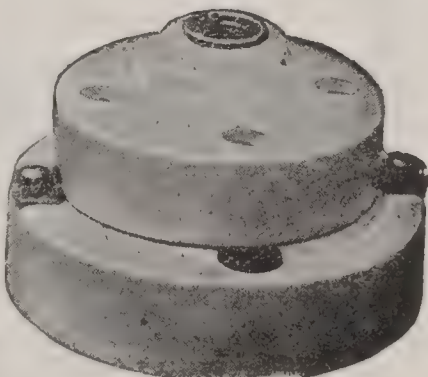


List No. 873.

List No.		Std. Pkg.	Price.
873	For Concealed Work	100	\$0 36
1176	" Cleat Work.....	100	36
1177	" Moulding Work, Square Base,...	100	36
11539	Comb'n Round Base for Concealed and Moulding	100	36

With Brass Bushing.

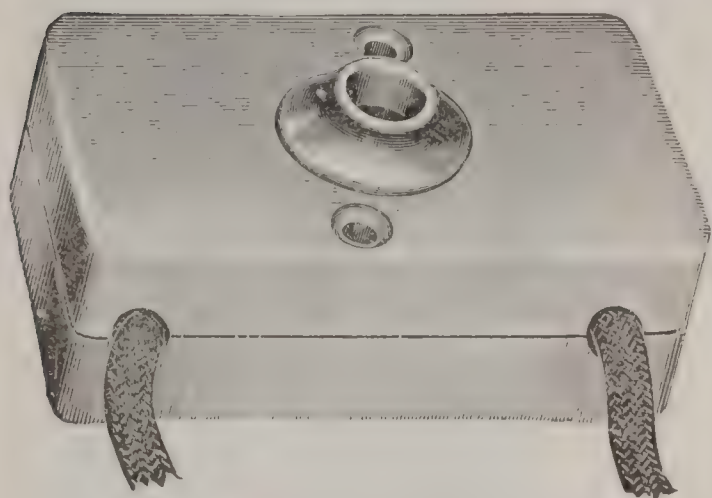
1487	For Concealed Work	100	36
1488	" Moulding Work, Square Base....		36
1489	" Cleat Work.....	100	36
11540	Comb'n Round Base for Concealed and Moulding.....	100	36



List No. 1487.

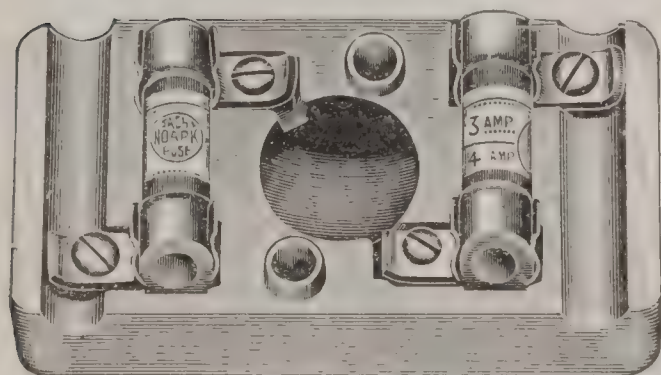
COMBINED FUSIBLE CLEAT AND ROSETTE.

For Enclosed Fuses.
For 125 Volts.



With Cover Attached.

This combined fusible cleat and rosette is the most compact and neatest design on the market.
For up to date wiring this should be used in preference to any other type.

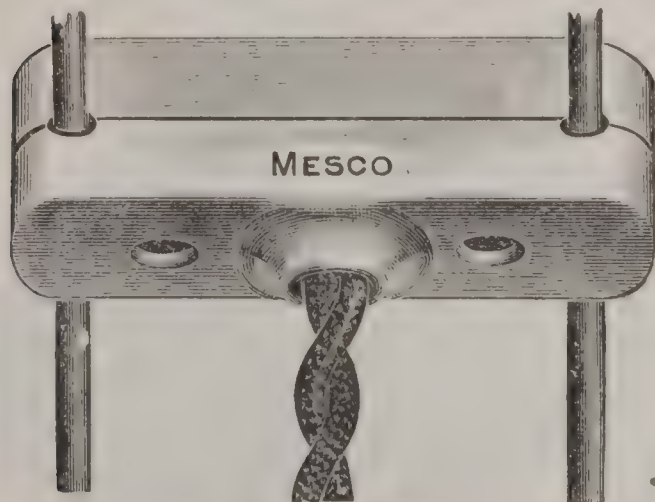


Without Cover

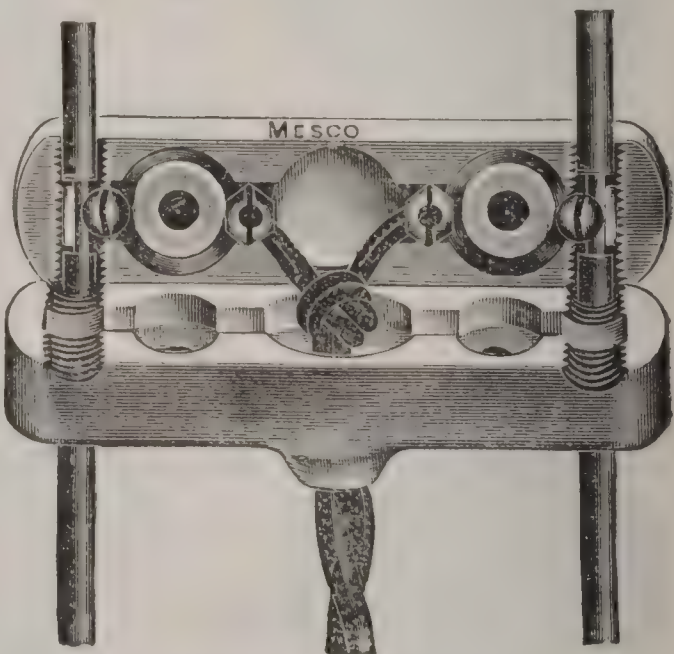
List No.		Std. Pkg.	Price.
6553	Combined cleat and rosette without fuses	250	\$0 26
For price of fuses see Noark 5 amp. fuse list.			

Combined Fuseless Cleat and Rosette.

Very handy for cleat work as it can be used for both cleat and rosette. The size is but a little larger than an ordinary two-wire cleat. It has ample space for cord knot and is easily wired.



List No. 6555.

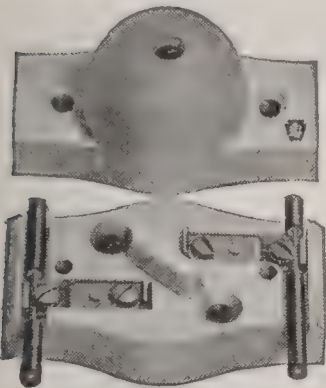


Open to show connection.

List No.		Price Each.
6555	Combined Cleat and Rosette, complete.....	\$0.12

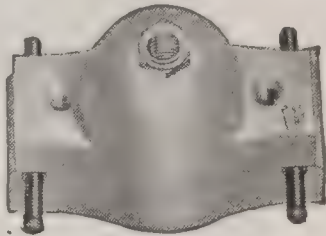
FIELDING FUSELESS ROSETTES.

The plain type for drop cord has opening sufficiently large to take re-enforced factory cord.
The bracket types are very convenient for window decorative work, using either nipples or small brackets.



List No. 11542.

Fielding Cleat Rosette.

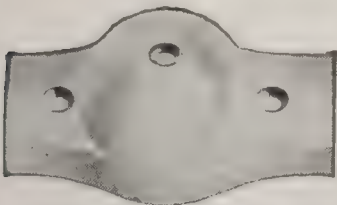


List No. 11543.

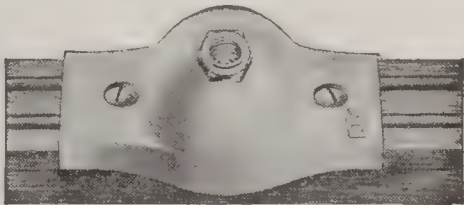
For 250 Volts.

List No.		Std. Pkg.	Price Each.
11542	For Drop Cord.....	250	\$0 20
11543	With Threaded Bushing.....	100	30
11544	With 90 Degree Nipple.....	100	40
11545	With 45 Degree Nipple.....	100	40

Fielding Moulding Rosette.



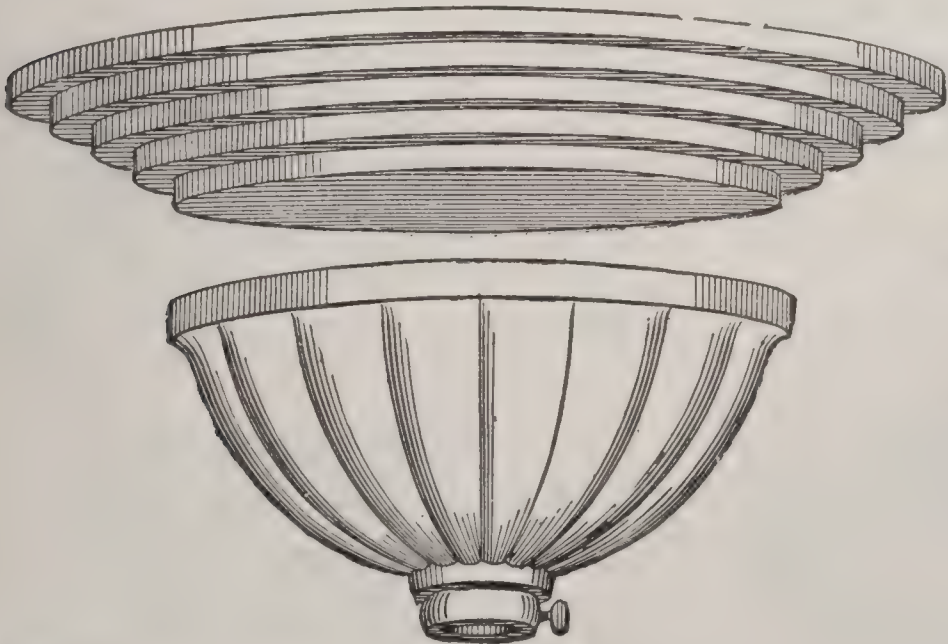
List No. 6492.



List No. 11546.

For 250 Volts.

List No.		Std. Pkg.	Price Each.
6492	For Drop Cord.....	250	\$0 20
11546	With Threaded Bushing.....	100	30
11547	With 90 Degree Nipple.....	100	40
11548	With 45 Degree Nipple.....	100	40



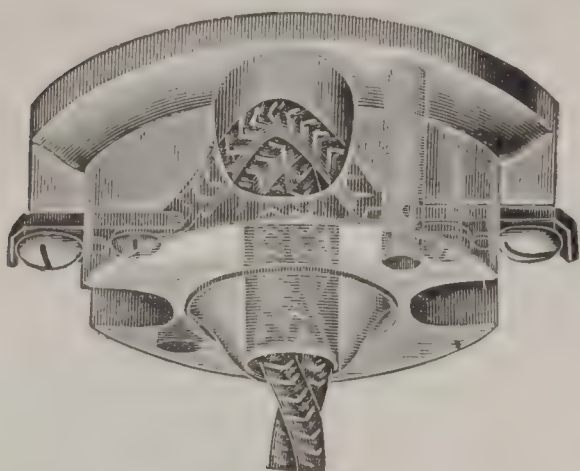
Roberts Fixture Block.

This Block fits four sizes of canopies—3, 3½, 4 and 4½ in. diameter.

When a canopy is in place it cannot side slip, and is firmly fixed in central position about the fixture stem.

One Roberts Block takes the place of four sizes of the old-style block.

List No.		Price.
11556	Plain Unfinished..... each	\$0 14
11557	Highly Polished Oak..... "	16



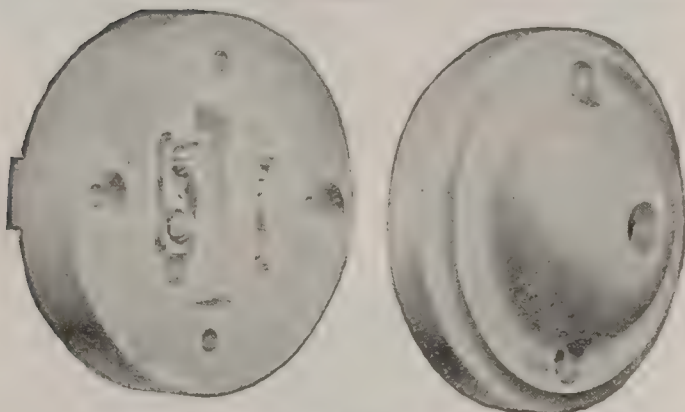
List No. 6559.

FUSELESS CLEAT ROSETTES.

One-Piece Fuseless Cleat Rosette.

It is made of one solid piece of porcelain and all contacts are readily accessible. All weights and strains are borne by knot, supported by solid porcelain, therefore there is no strain on contacts. Will take up to No. 16 new code lamp cord.

List No.	Std. Pkg.	Price each.
6559 Solid Cleat Rosette.....	500	\$0 16

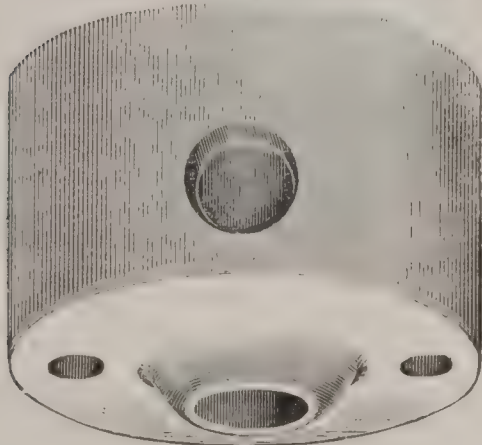


FIELDING FUSELESS ROSETTE.

For Concealed Work.

List No.	Std. Pkg.	Price each.
6558 For drop-cord work...	250	\$0 20

HIGH INSULATION CEILING BUTTONS.

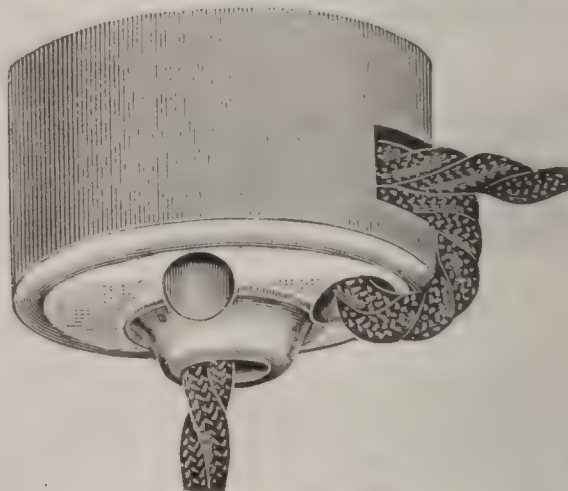


List No. 6550.

High Insulation Ceiling Button.

This Ceiling Button, as will readily be seen by the cut, effectually keeps the wire away from the ceiling and gives the best of insulation. It is small, being $1\frac{1}{2}$ inches in diameter, and is ornamental.

List No.	Price.
6550 Ceiling Button.....per 100,	\$3 60
Standard Package, 500.	

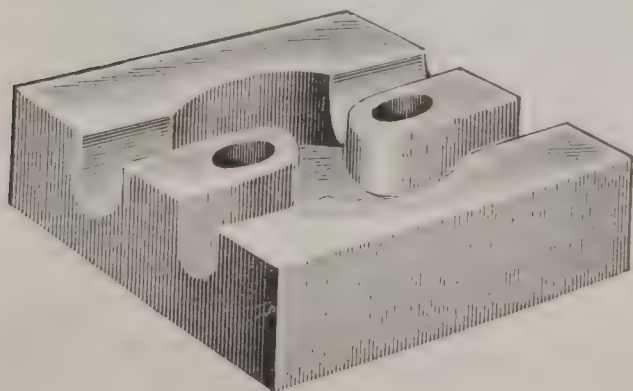


List No. 6552.

Self-tying High Insulation Ceiling Button.

This Ceiling Button is easy to use; it is wired in such a way that the entire weight of the lamp and socket is borne by the china button. It has a very high insulation, as the wire is fully one-half an inch from the ceiling. Can be used with show-window cord.

List No.	Price.
6552 Ceiling Button.....per 100,	\$5 00
Standard Package, 500.	



PORCELAIN SWITCH BLOCK.

For Moulding Work.

These blocks will take any Perkins 5 or 10 ampere 250 volt and 3 or 5 ampere 500 volt switch and nearly every switch of similar capacity of other manufacture.

List No.	Std. Pkg.	Price each.
6544 Perkins Switch Block	100	\$0 06

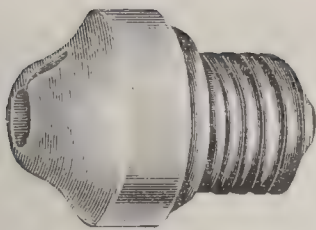
ATTACHMENT PLUGS.

Manhattan Porcelain Attachment Plug.

STRONG AND DURABLE.

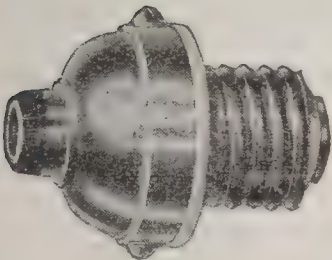
Easily wired, large cord hole. Ample space for knotting cord inside of cap.

3 Amperes. 250 Volts.



List No. 6507.

List No.		Stand. Pkg.	Price Each.
6507	Edison base, fused.....	250	\$0 22
6508	Edison, " unfused.....	250	22
6509	T.-H. " "	250	22
6510	West. " "	250	22



List No. 6514.

Brass Top Attachment Plug.

NEAT AND COMPACT.

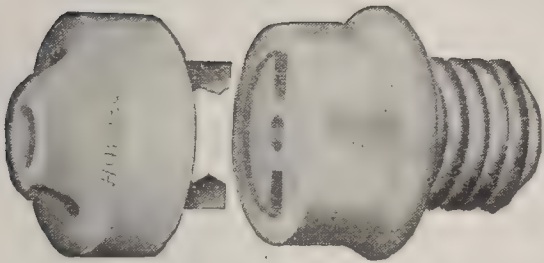
Heavy polished brass cap and fitted with bushing.

Fuseless.

List No.		Stand. Pkg.	Price Each.
6514	Edison base.....	250	\$0 22
6515	T.-H. "	250	22
6516	West. "	250	22

Hubbell Attachment Plugs.

Porcelain base, Porcelain caps.



List No. 15796

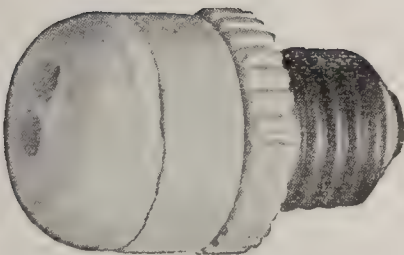
This Plug is made in two parts: The cord is attached to the detachable top. The porcelain base can be screwed into the socket, after which the cap is inserted, which avoids the twisting of cords.

FUSELESS.

List No.		Stand. Pkg.	Price Each.
15796	Edison base with porcelain cap....	100	\$0 30
15797	T. H. " " " "	100	30
15798	Porcelain cap only	20	15

G. E. Swivel Attaching Plug.

This plug is so constructed that only the base will turn when connection is being made with the socket or receptacle on the circuit, the part to which the cord is attached remaining stationary. This feature, as will be seen, completely obviates the twisting of the cord.



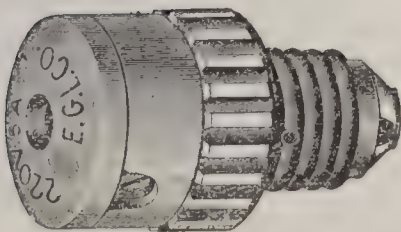
List No. 23840.

Fuseless.

List No.		Stand. Pkg.	Price Each.
23840	Edison base, complete.....	250	\$0 30

"Howe's" Swivel Attaching Plug.

This plug is also arranged to obviate the twisting of cord when connection is being made to the socket or receptacle. Very substantially constructed and finely finished.



List No. 6505.

List No.		Stand. Pkg.	Price Each.
6505	Edison base, complete.....	250	\$0 50
6506	T.-H. " "	250	50

CURRENT TAPS.

EDISON CURRENT TAP.



No. 50751,

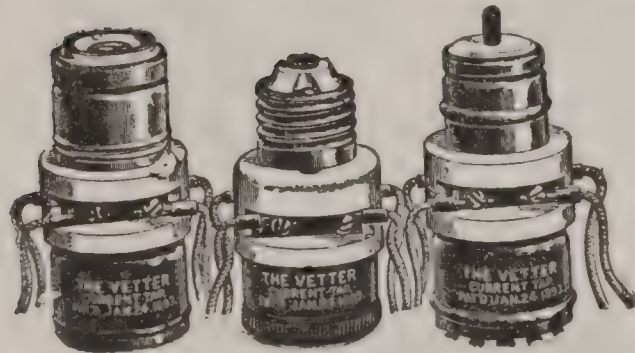
This device is of great convenience in connecting a fan, sewing machine motor, an extra lamp or other devices of similar character. Special connections may thus be made to any electric lighting circuit without the assistance of a wireman. The leads are attached to the side of the plug, and the lamp inserted in the socket; thus in the event of there being only one available socket or receptacle, a small motor may be attached without interfering with the illumination of the room. The combined socket and attaching plug is made of glazed porcelain with all live metal parts protected.

It is designed for 250 volts and can be used in connection with all standard electric sockets and receptacles.

List No.		Price.
50751	Edison base, complete.....	each, \$0 60
23798	T.-H. " "	" 60

VETTER CURRENT TAP.

For Series or Multiple Connections.



List No. 6511.

A combined socket and plug. A simple and safe device for tapping and carrying the current from any electric light fixture to motor, droplights or other electrical devices without the loss of lamp in fixture. In ordering, specify series or multiple as desired.

List No.		Price.
6511	For Edison socket.....	each, \$1 00
6512	" T.-H. "	" 1 00
6513	" Westinghouse socket.....	" 1 00

BENJAMIN CURRENT TAP.

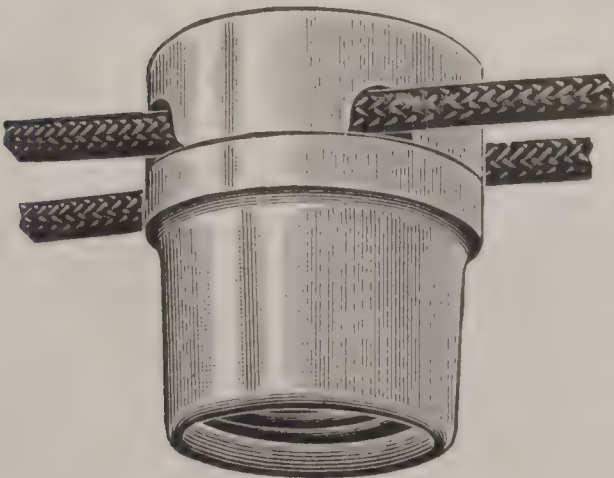


List No. 15784

Fits any Edison base socket; receives any combination of lamps and attachment plugs; by its use a one light pendant can be converted into a cluster.

List No.		Price.
15784	2 Light Multiple.....	\$1 00
15785	3 " "	1 30
15786	4 " "	1 60
15787	2 " Series	1 10

MESCO TEMPORARY SOCKET.



List No 16275

This socket is unequalled for temporary decorative lighting of every description and is conceded by experts to be the most practical and safest device of its kind on the market. It can be attached to either solid or stranded wires.

The socket is easily installed and there is no danger of poor contacts as the wires are clamped solidly to the socket.

List No.	Price.
16275	Socket Complete Edison Base..... \$0 40

"DIAMOND H" STANDARD SWITCHES.



Standard Switch.



Standard Dial Switch.

Dial Indicating.

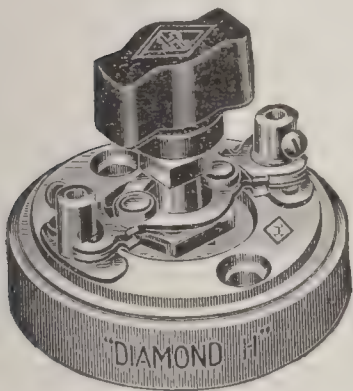
Dial, Removable to facilitate connecting up.

Hardened and Tempered Steel for the parts of mechanism most subject to wear.

Spring Bronze Knife Contacts.

Sheet Mica Insulation of the current carrying parts from the mechanism.

Switch Plate loosely carried by the mechanism, allowing it to adjust itself in the contact clips.



List No. 6570

5 Amperes S. P., 220 Volts.

List No.	With or without Dial.	Std. pkg.	Price.
6570 Mfg. No. 220.	Closed Base.....	102.....	\$0 40
6571 " 2200.	Open Base.....	102.....	40
6572 " D 220.	Dial, Closed Base.....	102.....	40
6573 " D 2200.	Dial, Open Base.....	102.....	40

10 Amperes S. P., 220 Volts.

List No.	With or without Dial.	Std. pkg.	Price.
6574 Mfg. No. 221.	Closed Base.....	102.....	\$0 50
6575 " 2210.	Open Base.....	102.....	50
6576 " D 221.	Dial, Closed Base....	102.....	50
6577 " D 2210.	Dial, Open Base.....	102.....	50

10 Amperes D. P., 220 Volts.

List No.	With or without Dial.	Std. pkg.	Price.
6578 Mfg. No. 222.	Closed Base.....	102.....	\$0 90
6579 " 2220.	Open Base.....	102.....	90
6581 " D 222.	Dial, Closed Base....	102.....	90
6582 " D 2220.	Dial, Open Base.....	102.....	90

List No. 10 Amperes, Three-Way, 220 Volts. Price.

6583 Mfg. No. 223.	Closed Base.....	54.....	\$0 90
6584 " 2230.	Open Base.....	54.....	90

List No. 10 Amperes, Four-Way, 220 Volts. Price.

6585 Mfg. No. 224.	Closed Base.....	12.....	\$0 90
6586 " 2240.	Open Base.....	12.....	90

Three-way switches are used for controlling a group of lights from either one of two points at will, and four-way switches when additional points of control are desired.

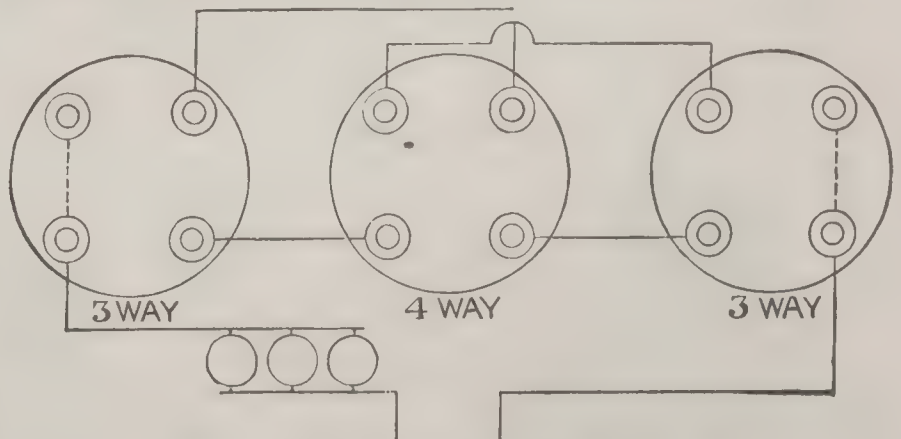
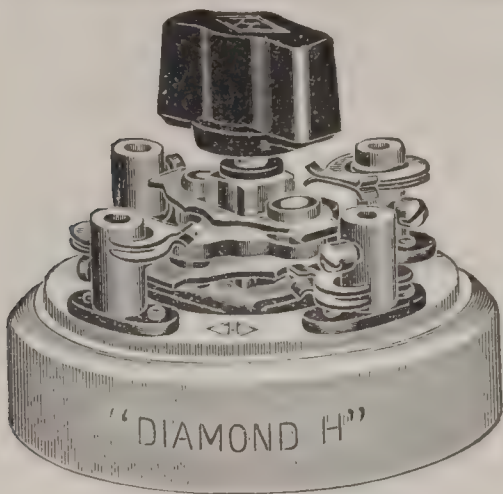


Diagram for Three and Four-Way Switches.



List No. 6582



“DIAMOND H” STANDARD SWITCHES.

20 and 35 Amperes, 220 Volts.

List No.	Mfrs. No.					Std. Pkg.	Price.
15766	321	20 Amp.	S. P.	Plain	Concealed Base.....	6	\$0 90
15767	3210	20	"	"	Slotted "	6	90
15768	D321	20	"	"	Indicating Concealed Base.....	6	90
15769	D3210	20	"	"	Slotted "	6	90
15770	322	20	"	D. P.	Plain Concealed.	24	1 20
15771	3220	20	"	"	Slotted "	24	1 20
15772	D322	20	"	"	Indicating Concealed "	24	1 20
15773	D3220	20	"	"	Slotted "	24	1 20
15774	421	35	"	S. P.	Plain Concealed	"	1 20
15775	4210	35	"	"	Slotted "	"	1 20
15776	D421	35	"	"	Indicating Concealed "	"	1 20
15777	D4210	35	"	"	Slotted "	"	1 20
15778	422	35	"	D. P.	Plain Concealed	"	1 50
15779	4220	35	"	"	Slotted "	"	1 50
15780	D422	35	"	"	Indicating Concealed "	"	1 50
15781	D4220	35	"	"	Slotted "	"	1 50



List No. 6590.

10 Amperes, 2-Point Electrolie.

With or without Dial.

List No.	Mfrs. No		Std. Pkg.	Price.
6590	225	Closed Base	12	\$0 90
6591	2250	Open Base.....	12	90
6592	D225	Dial, Closed Base.....	12	90
6593	D2250	Dial, Open Base.....	12	90

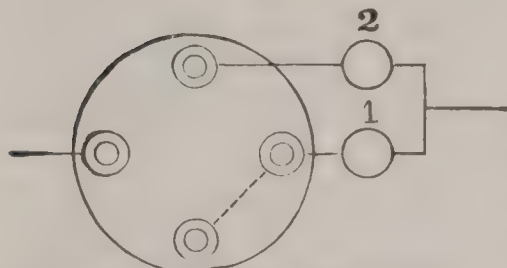
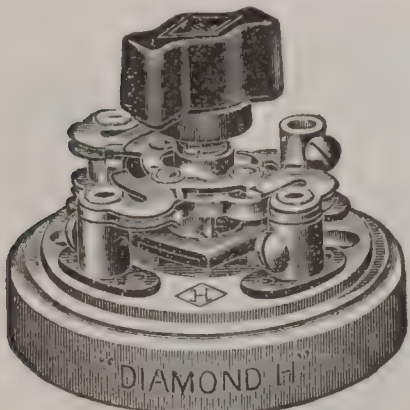


Diagram for 2-Point Electrolie.

Two-Point Electrolie Switches are used for controlling a group of lights in sections, as follows: First turn, lights at 1; Second turn, lights at 1 and 2; Third turn, lights 1; Fourth turn, “off.”



List No 6594

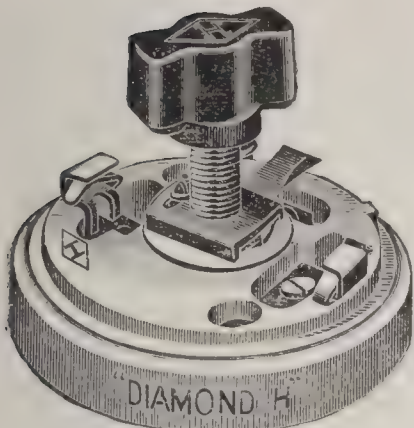
10 Amperes, 3-Point Electrolie.

With or without Dial.

List No.	Mfrs. No.		Std. Pkg.	Price.
6594	226	Closed Base	12	\$0 90
6595	2260	Open Base.....	12	90
6596	E226	Dial, Closed Base.....	12	90
6597	D2260	Dial, Open Base.....	12	90

“DIAMOND H” STANDARD SWITCHES.

500 VOLTS.



List No. 6605.

5 Amperes. 2 Circuit.

Used for operating two circuits alternately.

List No.	Mfg. No.		Std. pkg.	Price.
6605	506	Closed Base.....	54.....	\$0.90
6606	5060	Open “	54.....	.90

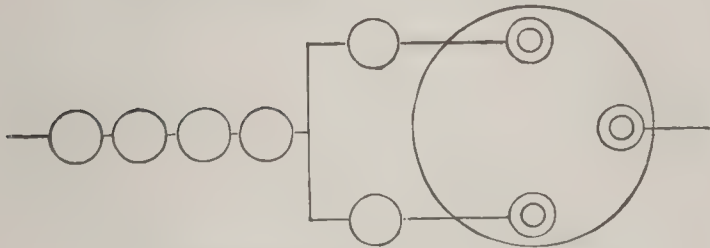


Diagram for two circuit.

5 Amperes. 3 Circuit.

Used for operating three circuits in succession.

List No.	Mfg. No.		Std. pkg.	Price.
6607	507	Closed Base..6..		\$0.90
6608	5070	Open “ ..6..		.90



List No. 6609.

2 Amperes. Multiple Series.

List No.	Mfg. No.		Std. pkg.	Price.
6609	508	Closed Base.....	24.....	\$0.90
6610	5080	Open “	24.....	.90

“DIAMOND H”
500 VOLT SWITCHES.

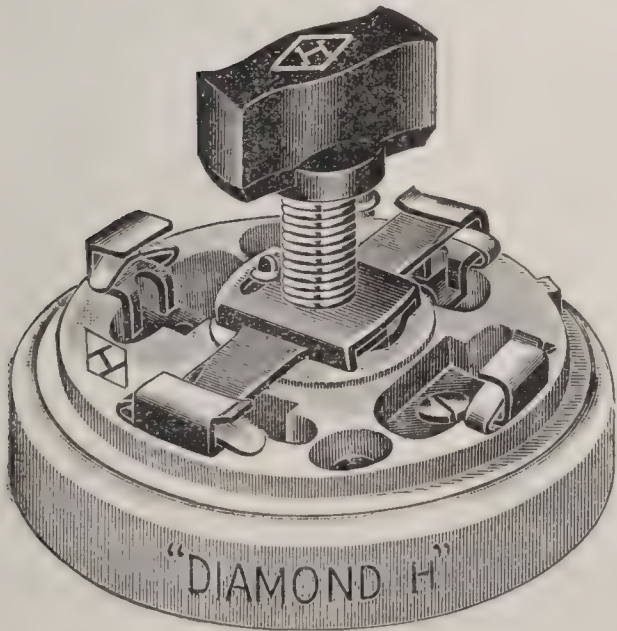
5 Amperes, Single Pole.

List No.		Std. pkg.	Price.
6598	Mfg. No. 501. Closed Base....	102	\$0 50
6599	“ 5010. Open Base.....	102	50

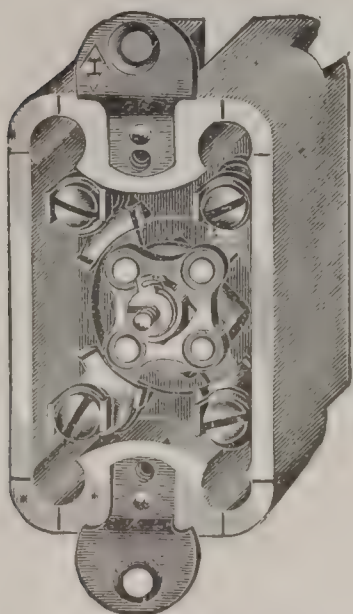
5 Amperes, Three-Way.

List No.		Std. pkg.	Price
6600	Mfg. No. 503. Closed Base....	102	\$0 90
6601	“ 5030. Open Base.....	102.....	90

Wiring of No. 6600 according to Diagram of connections of Three-way, 220 volt switches.



List No. 6598



“DIAMOND H” ROTARY FLUSH SWITCHES.

“Diamond H” rectangular base rotary flush switches and plates will fit any base that will take a push switch. No special boxes are necessary. They will also fit the “Diamond H” steel wall-cases and frames.

List No.		Std. Pkg.	Complete With Plate.	Without Plate.
11720	5 Amp. S. P.....	50	\$1 20	\$0 60
11710	10 “ “	50	1 30	70
11711	10 “ D. P.....	50	1 70	1 10
11712	10 “ 3 Way.....	50	1 70	1 10
11713	10 “ 4 “	10	1 70	1 10
11714	10 “ Electr. 2 Pt...	10	1 70	1 10
11715	10 “ “ 3 Pt...	10	1 70	1 10

Single and Gang Plates for Rotary Flush Switches.

No. of Switches.	1	2	3	4	5	6	7	8
Type S per plate.....	\$0.60	1.20	1.80	2.40	3.00	3.60	4.20	4.80
“ R S “ .....	.70	1.30	1.90	2.50	3.10	3.70	4.30	4.90

Type S Plates have square corners and beveled edges, and are sent on all orders unless otherwise specified.

Type R S Plates have rounded corners and edges.

Standard finishes are nickel, bronze, old brass, polished brass and oxidized copper.

Tandem Plates for 2, 3, 4, 5 or 6 switches at same price as for corresponding sizes of gang plates.

“Diamond H” Rotary Flush Lock Switches.



The Lock Switch itself is the same as the regular switch. The switch handle is replaced by a bushing, riveted to the face plate. This bushing contains a spring-pressed stud which screws on to the switch spindle. The outer end of this stud is circular and carries a feather adapted to engage the notch in the end of the removable key. The switch spindle being insulated from the current-carrying parts of the switch, an all-metal key may be used.

Regular finishes are Nickel, Bronze, Polished Brass and Old Brass.

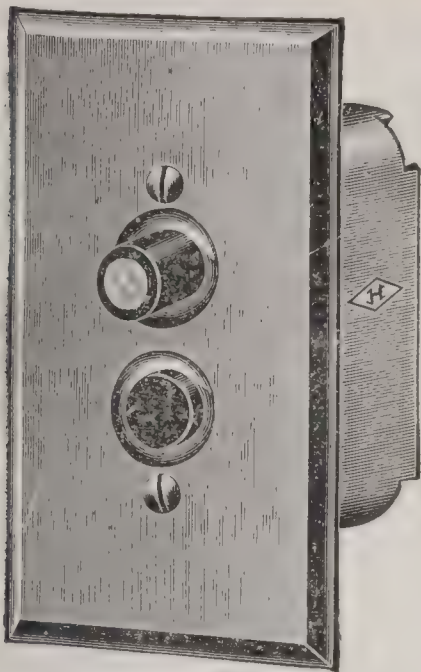
Nickel finish is sent unless otherwise ordered.

List No.		Std. Pkg.	Complete With Plate.	Without Plate.
6628	5 Amp. S. P.....	50	\$1 40	\$0 60
6621	10 “ “	50	1 50	70
6622	10 “ D. P.....	50	1 90	1 10
6623	10 Amp. 3 Way.....	50	1 90	1 10
6624	10 “ 4 “	10	1 90	1 10
6625	10 “ Electr. 2 Pt.....	10	1 90	1 10
6626	10 “ “ 3 “	10	1 90	1 10
6627	Extra keys.....		each,	10

Rotary Lock Plates.

No of Switches.	1	2	3	4	5	6	7	8
Price each.....	\$0.80	1.60	2.40	3.20	4.00	4.80	5.60	6.40

Standard Finishes, Tandem Plates, etc., same as descriptions under regular Rotary Gang Plates.



“DIAMOND H” PUSH BUTTON SWITCHES.

Sheet mica insulation. Quick and positive action. Knife contacts. Mechanism insulated from current-carrying parts. Will fit wall appliances made for other Push Button Switches.

List No.			Complete with Plate.	Without Plate.	Plate Only.
11568	10 Amp.	Single Pole	\$1 90	\$1 60	\$0 30
11569	10 “	Double “	2 25	1 95	30
11570	10 “	3 Way	2 25	1 95	30
11571	10 “	4 “	4 00	3 70	30

Gang Plates for “Diamond H” Push Switches.
Types “S” and “R S.”

No. of switches	2	3	4	5	6	7	8	9	10
Type S per plate	\$0.60	0.90	1.20	1 50	1.80	2.10	2.40	2.70	3.00
Type R S per plate.....	70	1.00	1.30	1.60	1.90	2.20	2 50	2.80	3.10

Type “S” Plates have square corners and beveled edges, and are sent on all orders unless otherwise specified.
Type “R S” Plates have rounded corners and edges. Both types of plates fit new code “Diamond H” wall cases and all standard Iron Boxes.
Standard Finishes are nickel, bronze, old brass, polished brass and oxidized copper. Other finishes to order at special prices.
Tandem Plates for 2, 3, 4, 5 or 6 switches at same price as for corresponding sizes of gang plates.

“DIAMOND H” PUSH LOCK SWITCHES.



Push Lock Switch and Key.

The Lock Switch resembles the regular switch in every particular, except that the buttons are not used, and the ends of the lever to which the buttons are ordinarily attached are adapted to engage the end of the key, which does not touch any current-carrying part.

The switch is operated by pushing the key into one or the other of the keyholes.

The keyholes are of such shape that nothing but the key adapted for same will operate the switch.

The keys are made of steel, finished in polished nickel.

Single and gang plates of any type are furnished with lock attachments when so ordered.

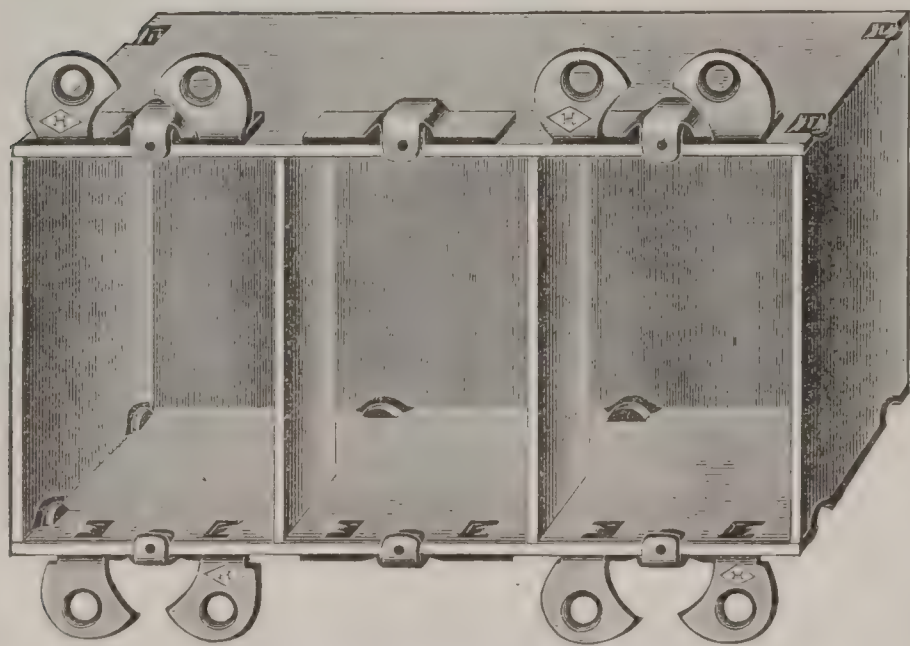
Regular finishes are Nickel, Bronze, Polished Brass and Old Brass.

Nickel finish is sent unless otherwise ordered.

Complete with Plate and Key.

List No.		Price.
6640	10 amp. S. P. at 150 volts, 5 amp. at 220 volts.....	each, \$2 40
6641	10 amp. D. P. at 220 volts.....	“ 2 90
6642	10 amp. 3-way at 150 volts, 5 amp. at 220 volts.....	“ 2 90
6643	10 amp. 4-way at 150 volts, 5 amp. at 220 volts.....	“ 4 50
6644	Extra Keys.....	“ 10

“DIAMOND H” STEEL WALL CASES.

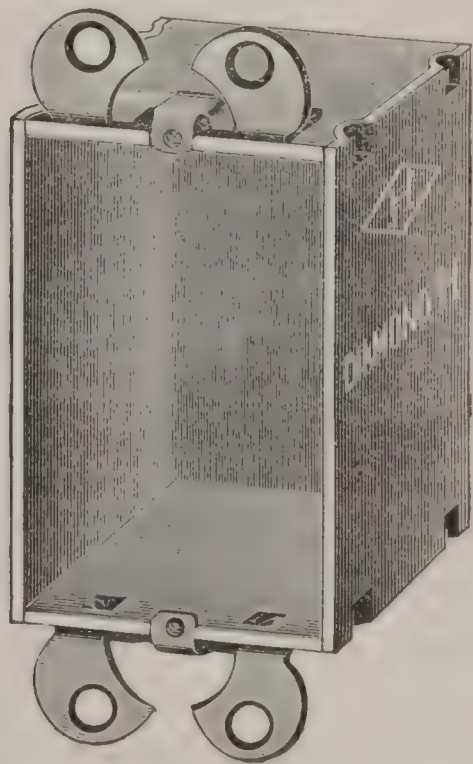


“Diamond H” Steel Wall Cases are made of cold rolled steel and galvanized to prevent rusting. They are intended for use in finished houses. In installing them, the ears must not be let into the surface to which the case is attached, as the face plate has recesses in the back for these ears. These cases are adapted for “Diamond H” Push and Rotary Flush Switches; and the “Diamond H” Flush Receptacle. They are made in two styles—shallow—for use with Circular Loom, Flexduct, Attix Wire, or where partitions are not deep enough to take a deeper case—and “deep” for use with iron armored conduit, “BX,” etc. “Shallow” cases are two and five-eighth inches deep, and are provided with eight knock-out holes, (four in back and two top and bottom).

Single and Gang Wall Cases—Shallow.

List No.	Mfrs. No.		Price.
15840	81	For 1 Switch.....	\$0 40
15841	82	“ 2 Switches.....	70
15842	83	“ 3 “.....	1 00
15843	84	“ 4 “.....	1 30
15844	85	“ 5 “.....	1 60
15845	86	“ 6 “.....	1 90
15846	87	“ 7 “.....	2 20
15847	88	“ 8 “.....	2 50
15848	89	“ 9 “.....	2 80
15849	90	“ 10 “.....	3 10

Tandem Wall Cases—Shallow.



List No.	Mfrs. No.		Price.
15855	T82	For 2 Switches.....	\$0 70
15856	T83	“ 3 “.....	1 00
15857	T84	“ 4 “.....	1 30
15858	T85	“ 5 “.....	1 60
15859	T86	“ 6 “.....	1 90

“Deep” cases are three and three-quarter inches in depth and are provided with six knock-out holes (one at top and bottom and two at each side).

Single and Gang Wall Cases—Deep.

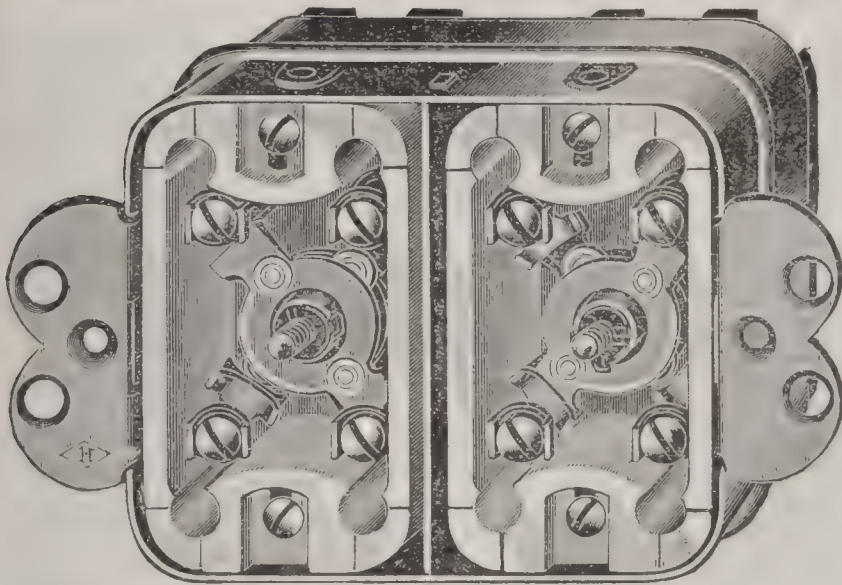
List No.	Mfrs. No.		Price.
15865	281	For 1 Switch.....	\$0 60
15866	282	“ 2 Switches.....	90
15867	283	“ 3 “.....	1 20
15868	284	“ 4 “.....	1 50
15869	285	“ 5 “.....	1 80
15870	286	“ 6 “.....	2 10
15871	287	“ 7 “.....	2 40
15872	288	“ 8 “.....	2 70
15873	289	“ 9 “.....	3 00
15874	290	“ 10 “.....	3 30

Tandem Wall Cases—Deep.

List No.	Mfrs. No.		Price.
15880	T282	For 2 Switches.....	\$0 90
15881	T283	“ 3 “.....	1 20
15882	T284	“ 4 “.....	1 50
15883	T285	“ 5 “.....	1 80
15884	T286	“ 6 “.....	2 10

When ordering Plates for these Wall Cases, always specify type “S.”

"DIAMOND H" STEEL WALL APPLIANCES.



Back Frames and Switches.

For Push Button and Rotary Flush Switches.

Back Frames.

Back Frames are made for single switches and gangs; they are for use where no other device has been provided for holding the switches in position, and where the use of Wall Cases is not compulsory. The large ears at the ends of the single Back Frames afford a better means of fastening to a plastered wall than the small ears of the switch. This is also true of the Gang Back Frames, and in addition, when used for gangs, the switches will be located in the correct position with reference to the face plate.

Single and Gang-Back Frames.

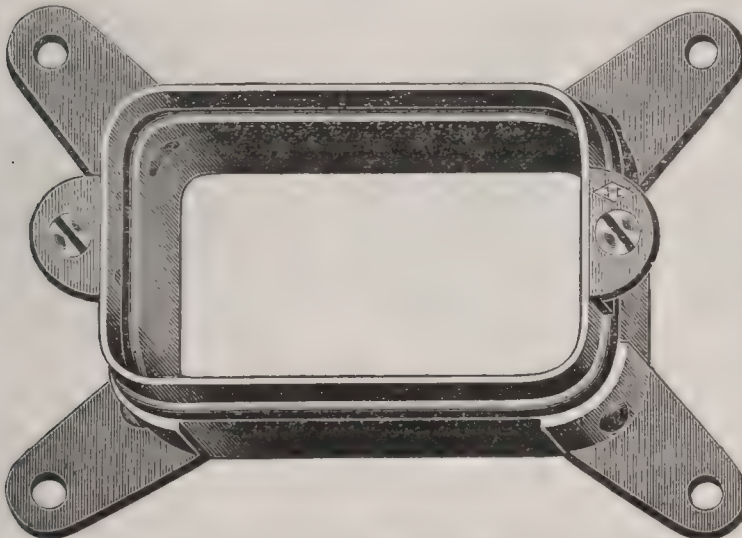
List No.	Mfrs. No.		Price Each.
11580	71	For one Switch,	\$0 25
11581	72	" two Switches.....	35
11582	73	" three "	45
11583	74	" four "	51
11584	75	" five "	57
11585	76	" six "	63
11586	77	" seven "	69
11587	78	" eight "	75

List No.	Mfrs. No.		Price Each.
11588	79	For nine Switches.....	\$0 81
11589	80	" ten "	87

Tandem Back Frames.

11590	T 72	For two Switches.....	\$0 35
11591	T 73	" three "	45
11592	T 74	" four "	51
11593	T 75	" five "	57
11594	T 76	" six "	63

Back Frames require "C" Plates.



In Ordering Switches for Use in Wall Frames, Specify "A" Plates.

Wall Frames.

Wall Frames are to be installed during the construction of a building, and are to be plastered in, flush with front edge. They are made of cold-rolled steel, galvanized. Their weight is about one-third that of cast-iron frames. They will take Push Button and Rotary Flush Switches with round ears, as shown in cuts on preceding pages.

Single and Gang Wall Frames.

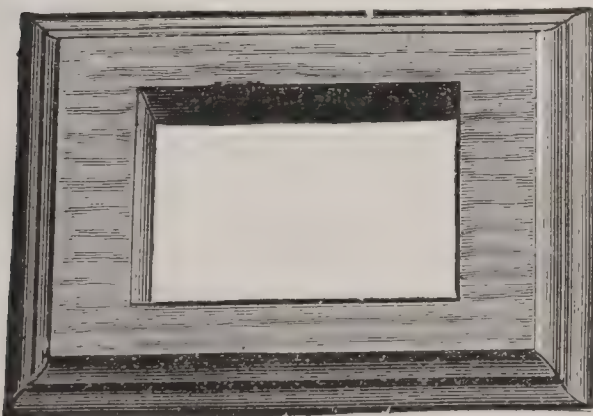
List No.	Mfrs. No.		Price Each.
6715	61	For one Switch	\$0 20
6716	62	" two Switches... ..	30
6717	63	" three "	40
6718	64	" four "	45
6719	65	" five "	52
6720	66	" six "	58
6721	67	" seven "	64
6722	68	" eight "	70

Tandem Wall Frames.

List No.	Mfrs. No.		Price.
11600	T 62	For two Switches, each,	\$0 30
11601	T 63	" three "	40
11602	T 64	" four "	46

List No.	Mfrs. No.		Price.
11603	T 65	For five Switches, each,	\$0 52
11604	T 66	" six "	58

Wall Frames require "A" Plates.



Wood Mats.

Wood Mats for "Diamond H" Switches.

In ordering Mats specify whether they are to be "A" or "C" Mats for use with "A" and "C" Plates respectively. All Mats are 5/8 in. thick.

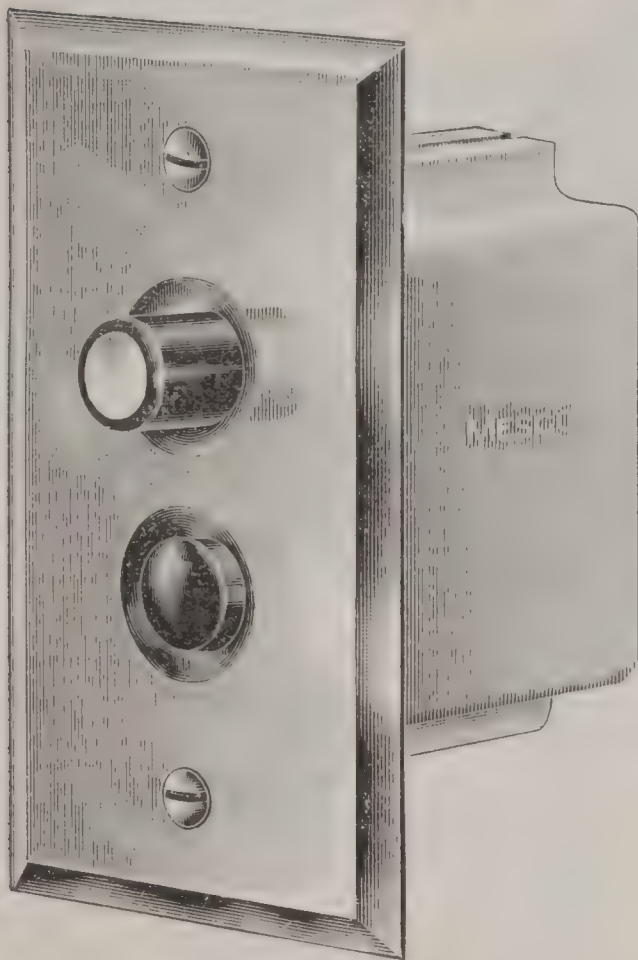
OAK, ASH OR CHERRY.

No.	No.	No.	No.	No.	No.	No.	No.
1	2	3	4	5	6	7	8
\$0 30	40	50	60	70	80	90	1 00

MAHOGANY, ROSEWOOD AND SIMILAR WOODS.

No.	No.	No.	No.	No.	No.	No.	No.
1	2	3	4	5	6	7	8
\$0 50	70	90	1 10	1 30	1 50	1 70	1 90

MANHATTAN PUSH BUTTON SWITCH.



This Switch is of the highest grade in material and workmanship and has the following advantages over other push switches.

Extra Long and Quick Break. Light Action, Great Flexibility of Contact Springs (which are of knife pattern) insuring perfect contact and are so located as to be protected from accidental injury or displacement.

Simplicity of construction reducing liability to get out of order to a minimum. The mechanism is insulated with sheet mica washers and the working parts are of hardened steel. The switch is firmly locked when on or off and cannot be stopped between these positions.

These Switches will fit the Standard boxes and are very easily wired.

With Bevel Edge Plate.

List No.			Price.
6740	10 Amp. Single Pole at 110 volts, or 5 amp. at 220 volts.....	each,	\$1.90
6741	10 " Double Pole, at 220 volts	"	2.40
6742	10 " 3-way at 110 volts, or 5 amp. at 220 volts.....	"	2.40
6743	10 " 4 " " 110 " " 5 " " 220 "	"	4.00

For Gang and Tandem Plates see list on page 595.



Push Switch and Receptacle Box.

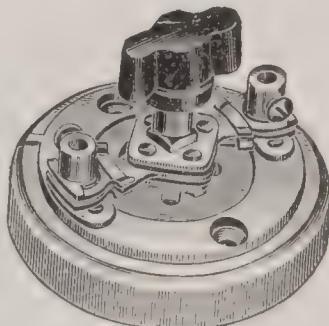
This box is made of heavy pressed steel, black enameled, and is arranged to hold the Manhattan Push Button Switch and other standard types, also the Manhattan, Z. & H. and other standard Receptacles.

List No.	Mfrs. No.		Price.
6745	65	Three inches deep, 2 knock-out holes on each end for $\frac{3}{8}$ Greenfield or Sterling Flexible Metallic Conduit. No. 14 Greenfield Armored Duplex Conductors, or $\frac{1}{4}$ inch Flexible Conduit.....	\$0 40
6746	70	$3\frac{1}{2}$ inches deep, 1 knock-out hole on each end for $\frac{1}{2}$ inch enameled iron conduit.....	40

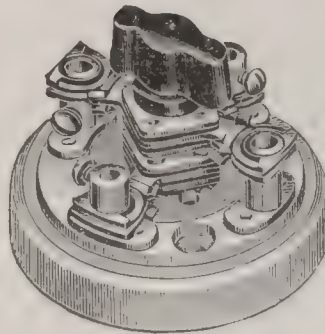
HART STANDARD SWITCHES.



WITH
INDICATING DIAL.



SINGLE POLE
SWITCH.



DOUBLE POLE
SWITCH



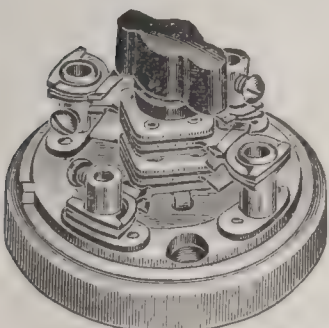
SHOWING
INDICATING DIAL.

The current-carrying parts in all Hart switches are thoroughly insulated from the mechanism, sheet mica being the insulating material principally used. The switch covers are lined on the sides and bottoms with hard fibre $\frac{3}{8}$ inch thick, put in in a single piece. All standard switches are made with "open" base for cleat work, or "closed" base for concealed work. These switches are made plain or with indicating dial at the same price. Indicating switches, closed base, are sent unless otherwise specified.

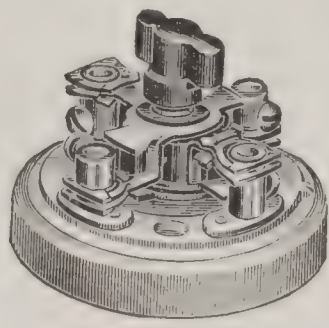
List No.	Mfrs. No.	For Circuits up to 110 Volts.	Std. pkg.	Price.
11612	220	Single Pole, 5 amperes, closed base.....	102.....	\$0 40
11613	320	" 5 " open "	102.....	40
11614	221	" 10 " closed "	102.....	50
11615	321	" 10 " open "	102.....	50

List No.	Mfrs. No.	For Circuits up to 250 Volts.	Std. pkg.	Price.
11616	222	Double Pole, 10 amperes, closed base.....	102.....	\$0 90
11617	322	" 10 " open "	102.....	90
11618	432	" 20 " closed "	24.....	1 20
11619	532	" 20 " open "	24.....	1 20
11620	442	" 35 " closed "	12.....	1 50
11621	542	" 35 " open "	12.....	1 50

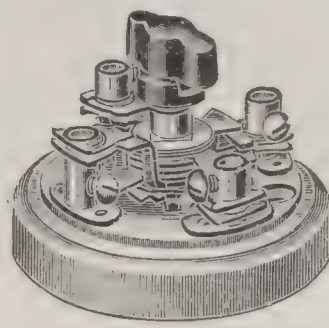
Any of the above switches with lock attachment, 30 cents extra.



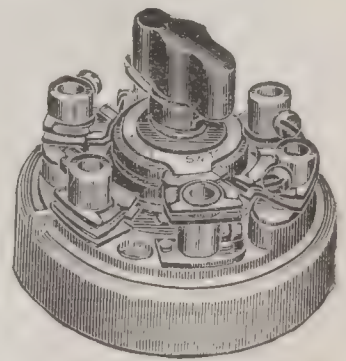
3-WAY SWITCH.
FOR 110 VOLTS.



4-WAY SWITCH.
FOR 110 VOLTS.



ELECTROLIER SWITCH.
FOR 110 VOLTS.



TRIPLE POLE SWITCH.
FOR 220 VOLTS.

List No.	Mfrs. No.	Std. pkg.	Price
6939	23	3-way, 10 amperes, closed base, non indicating.....	54..... \$0 90
11622	123	3- " 10 " open "	54..... 90
6941	33	3- " 20 " closed "	12..... 1 20
11623	133	3- " 20 " open "	12..... 1 20
6942	43	3- " 35 " closed "	12..... 1 50
11624	143	3- " 35 " open "	12..... 1 50
6943	24	4- " 10 " closed "	12..... 90
11625	124	4- " 10 " open "	12..... 90

Two Section Electrolier Switch.

For Controlling Lights in Two Sections.

11634	229	Electrolier, 10 amperes, closed base, indicating cover.....	12.....	\$0 90
11635	329	" 10 " open "	12.....	90

Three Section Electrolier Switch.

For Controlling Lights in Three Sections.

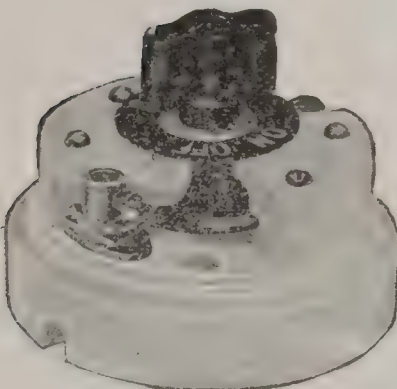
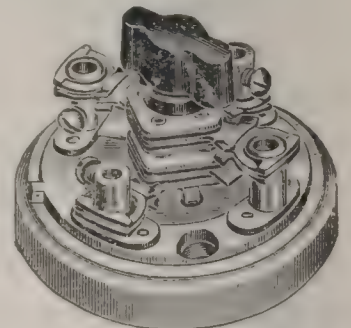
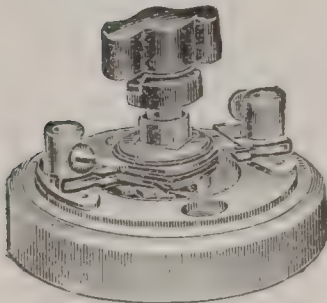
11626	225	Electrolier, 10 amperes, closed base, indicating cover.....	12.....	\$0 90
11627	325	" 10 " open "	12.....	90
11628	226	Triple Pole, 10 " closed "	12.....	1 60
11629	326	" 10 " open "	12.....	1 60
11630	436	" 20 " closed "	12.....	1 80
11631	5361	" 20 " open "	12.....	1 80
11632	446	" 35 " closed "	12.....	2 20
11633	546	" 35 " open "	12.....	2 20

Any of the above switches with lock attachment, 30 cents extra.

HART 500 VOLT BARRIER SWITCHES.

These Switches will operate successfully and safely on a 500 volt current, considerably above their rated capacity.

This is accomplished by passing the switch-plate through a narrow slot between two porcelain barriers. The air space is so small that it is impossible for the spark to follow.



List No.	Mfrs. No.					Std. Pkg.	Price Each.
16136	501 $\frac{1}{2}$	5	Amp. S. P. Closed Base, Plain.			102	\$0 60
16137	1501 $\frac{1}{2}$	5	" " Open " " ..			102	50
16138	2501 $\frac{1}{2}$	5	" " Closed " Indicating			102	60
16139	3501 $\frac{1}{2}$	5	" " Open " "			102	60
16140	531 $\frac{1}{2}$	5	" 3-Way Closed " Plain.....			102	1 00
16141	1531 $\frac{1}{2}$	5	" " Open " "			102	1 00
16142	2411 $\frac{1}{2}$	20	" S. P. Closed " "			50	1 50
16143	3411 $\frac{1}{2}$	20	" " Open " "			50	1 50
16144	4411 $\frac{1}{2}$	20	" " Closed " Indicating			50	1 50
16145	5411 $\frac{1}{2}$	20	" " Open " " ..			50	1 50



Combined Hart Snap-Switch and Cut-Out.

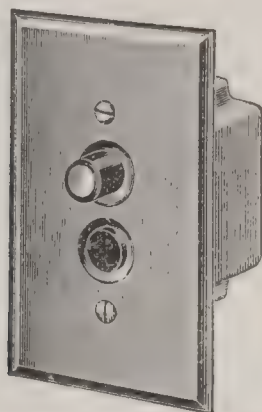
It consists of a Standard Hart 10-Ampere Double Pole Switch, mounted on a suitable porcelain base in connection with two cartridge fuses, all encased under one cover. The terminal clips, into which the supply wires are placed, are outside the cover.

This device will be found advantageous to control and protect motors, arc lamps, and incandescent lamp circuits. It will also be found convenient to use as a service switch on small installations and for panel-board work.

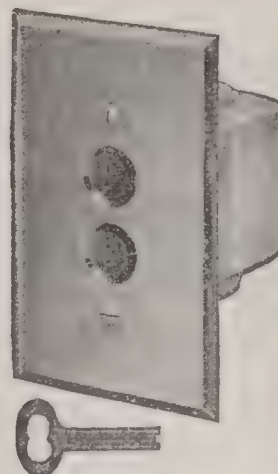
The Switch is furnished either with or without the fuses.

List No.		Std. Pkg.	Price.
11647	10 Amp. D. P. Ind. Switch and Cut-out.....	25	\$1 70
11648	Fuses only, per set, net.....		15

HART PUSH BUTTON AND KEY SWITCHES.



Push Switch Complete.



Key Switch Complete.

The excellent reputation of Hart Switches insures satisfaction in every installation. The Key Switch is a sure lock switch as it cannot be operated without the key whether the plate is "on" or "off." Plates described for the regular Push Switch will fit the Lock Switch.

PRICES WITHOUT PLATES.

Ratings: 10 Amp. on 110 Volts—5 Amp. on 220 Volts.

List No.		Price each.	List No.		Price each.
11650	Push Switch, Single Pole.....	\$1 60	11716	Key Switch.....	\$2 75
11651	" " Double Pole.....	1 95	11717	" "	3 50
11652	" " 3-Way.....	1 95	11718	" "	3 50
11653	" " 4- "	3 70	11719	" "	5 90



Plates for Hart Push Button and Key Switches.

Plates are made in this style and carried in stock to accommodate from one to eight switches.

Plate illustrated is adapted for use with the Push Button and Key Switches listed above.

We call particular attention to the generous size of the Plates. They are made large so they can be used in connection with the wall cases and cover up all broken edges of plaster. Can also be used with Iron Conduit Boxes. This size of plate is always sent unless otherwise specified.

Stock finishes: Brass, Bronze, Nickel and Copper either polished, dull or oxidized. Special finishes to order.

DIMENSIONS OF PLATES.

On Gang Plates Switches are located $1\frac{1}{8}$ in. between centers.

No. Switch...	1 P	2 P	3 P	4 P	5 P	6 P	7 P	8 P
Height.....	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$
Length.....	$2\frac{3}{4}$	$4\frac{9}{16}$	$6\frac{3}{8}$	$8\frac{3}{16}$	10	$11\frac{1}{8}$	$13\frac{3}{8}$	$15\frac{7}{16}$
Price.....	\$0 30	0 60	0 90	1 20	1 50	1 80	2 10	2 40



Tandem Plates

for the Hart Push Button Flush Switches.

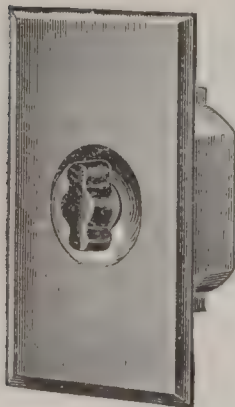
Plates are made in Tandem style and carried in stock to accommodate from two to six switches.

Stock Tandem Plates are made of one size only and are adapted for use with our Wall Cases and Iron Conduit Boxes.

DIMENSIONS OF PLATES.

No. Switch.....	2 T P	3 T P	4 T P	5 T P	6 T P.
Height.....	$8\frac{1}{8}$	$11\frac{3}{4}$	$15\frac{3}{8}$	19	$22\frac{5}{8}$
Width.....	$2\frac{5}{8}$	$2\frac{5}{8}$	$2\frac{5}{8}$	$2\frac{5}{8}$	$2\frac{5}{8}$
Price.....	\$0 60	0 90	1 20	1 50	3 60

THE "HART" RECTANGULAR BASE FLUSH SWITCHES.

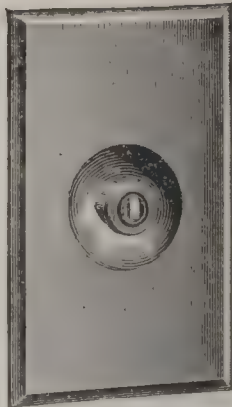


SWITCH COMPLETE.

The Switches will fit in the same space as a Push Button Flush Switch.
The current-carrying parts are insulated from mechanism.
The operation is easy, smooth and sure.
The Switch fits any standard box designed for Push Button Flush Switches, or our standard wall case, without alteration or removal of any parts.
Binding screws are extra long, making it easy to wire.

Lock Attachment.

We can furnish all Rectangular Base Flush Plates with lock attachment, which will operate the switch by detachable keys. List price is thirty cents per switch in addition to the price of plates listed.

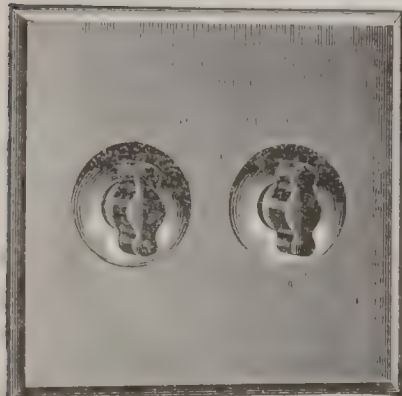


SHOWING LOCK ATTACHMENT.

Price of Switches. WITHOUT PLATES.

List No.	Mfrs. No.				Std pkg.	Price Each.
11655	600	5 Amp. S. P.,	220 Volts,	.....	50.....	\$0 70
11656	601	10 " " "	220 " "	.....	50.....	80
11657	602	10 " D. P.,	220 " "	.....	50.....	1 20
11658	603	10 " 3-Way,	220 " "	.....	50.....	1 20
11659	604	10 " 4-Way,	220 " "	.....	10.....	1 20
11660	605	10 " 3-Section	Electrolie	.....	10.....	1 20
11661	609	10 " 2- " "	" "	.....	10.....	1 20

Plates for the Hart Rectangular Base Flush Switches.



No. 2. R Gang. Rectangular Flush Plate.

Plates are made in this style and carried in stock to accommodate from one to eight switches.
Plate illustrated is adapted for use with the Rectangular Base Flush and Lock Switches.
We call particular attention to the generous size of the Plates. They are made large so they can be used in connection with the wall cases and cover up all broken edges of plaster. Can also be used with Iron Conduit Boxes and Iron Frames. This size plate is always sent unless otherwise specified.
We furnish at regular prices Plates finished in Nickel, Brass, Bronze and Copper either polished, dull, or oxidized. We make a slight extra charge for Sand Blast finishes and for Gold and Silver finishes.

Dimension of Plates.

On Gang Plates, Switches are Located 1 1/8 ins. Between Centers.

No. Switches..	1 R	2 R	3 R	4 R	5 R	6 R	7 R	8 R
Height.....	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2
Length.....	2 1/4	4 1/8	6 3/8	8 1/8	10	11 1/8	13 5/8	15 7/8
Price.....	\$0 50	1 00	1 50	2 00	2 50	3 00	3 50	4 00



Tandem Plate.

Plates are made in Tandem style and carried in stock to accommodate from two to six switches.

We make up on order Tandem Plates of any size and to accommodate any number of switches.

Stock Tandem Plates are made of one size only and are adapted for use with our Wall Cases and Iron Conduit Boxes.

Dimensions of Plates.

Switches are Spaced 3 5/8 Inches Between Centers.

No. Switches.....	2 T. R.	3 T. R.	4 T. R.	5 T. R.	6 T. R.
Height.....	8 1/8	11 3/4	15 3/8	19	22 3/8
Width.....	2 5/8	2 5/8	2 5/8	2 5/8	2 5/8
Price.....	\$1 00	1 50	2 00	2 50	3 00

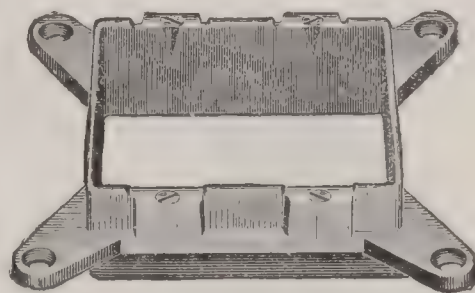
BOXES FOR IRON ARMORED CONDUIT AND IRON WALL FRAMES.

For Hart Rectangular Base Flush Switches and Push Switches.



No. 1 N. B. Box for Single Switch

These boxes are carried in stock for one switch, and for gangs up to and including eight switches. These boxes are carried in stock with knock-out outlets suitable for $\frac{1}{2}$ in. iron pipe. If ordered we will drill any number of outlets for any size conduit. These boxes can be readily used for the installation of switches whether the wiring is through conduit or knob and cleat work.



No. 2 N. F. Frame for Two Switches.

These frames are carried in stock for one switch, also for gangs up to and including eight switches.

List No.	Price of Boxes.	List No.	Price of Frames
11662 No. 1—N. B.	\$0 60 for single switch.....	11670 No. 1—N. F.	\$0 30
11663 No. 2—N. B.	1 05 for two switches in one row.....	11671 No. 2—N. F.	45
11664 No. 3—N. B.	1 50 for three switches in one row.....	11672 No. 3—N. F.	54
11665 No. 4—N. B.	1 95 for four switches in one row.....	11673 No. 4—N. F.	60
11666 No. 5—N. B.	2 40 for five switches in one row.....	11674 No. 5—N. F.	69
11667 No. 6—N. B.	2 85 for six switches in one row.....	11675 No. 6—N. F.	75
11668 No. 7—N. B.	3 45 for seven switches in one row.....	11676 No. 7—N. F.	84
11669 No. 8—N. B.	3 60 for eight switches in one row.....	11677 No. 8—N. F.	90

In ordering be careful to specify whether boxes or frames are desired.



Tandem Boxes.

TANDEM BOXES AND FRAMES.

For Hart Rectangular Base Flush Switches and Push Switches.

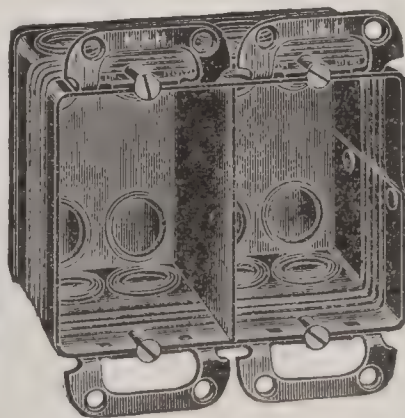
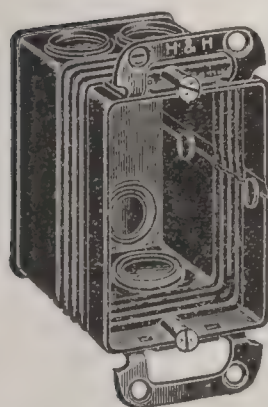
List No.	No.	Price of Box.
11720	2 T. N. B.	For two switches.....\$1 05
11721	3 T. N. B.	For three switches.....1 50
11722	4 T. N. B.	For four switches.....1 95
List No.	No.	Price of Frame.
11723	2 T. N. F.	For two switches.....\$0 45
11724	3 T. N. F.	For three switches.....54
11725	4 T. N. F.	For four switches.....60

WALL CASES.

For the Installation of the Hart Push Button Flush Switches and Rectangular Base Flush Switches in Old-House Work.



Tandem Frames



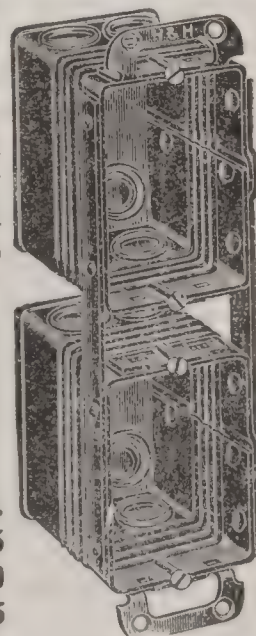
No. 1 W. Wall Case. No. 2 W. Wall Case—Horizontal Style.

Horizontal Style.

List No.	Nos.	Op'g Required	Price.
11678	1 W.	2 x 3 x $2\frac{3}{4}$	\$0 60
11679	2 W.	3 $\frac{1}{8}$ x 3 x $2\frac{3}{4}$	1 05
11680	3 W.	5 $\frac{5}{8}$ x 3 x $2\frac{3}{4}$	1 50
11681	4 W.	7 $\frac{7}{8}$ x 3 x $2\frac{3}{4}$	1 95
11682	5 W.	9 $\frac{1}{4}$ x 3 x $2\frac{3}{4}$	2 40
11683	6 W.	11 $\frac{1}{8}$ x 3 x $2\frac{3}{4}$	2 85
11684	7 W.	12 $\frac{7}{8}$ x 3 x $2\frac{3}{4}$	3 45
11685	8 W.	14 $\frac{1}{8}$ x 3 x $2\frac{3}{4}$	3 60

Tandem Style.

List No.	No.	Op'g Required	Price.
11686	2 T.W.	2 $\frac{1}{8}$ x 6 $\frac{3}{8}$ x $2\frac{3}{4}$	\$1 05
11687	3 T.W.	2 $\frac{1}{8}$ x 10 $\frac{1}{4}$ x $2\frac{3}{4}$	1 50
11688	4 T.W.	2 $\frac{1}{8}$ x 13 $\frac{3}{8}$ x $2\frac{3}{4}$	1 95
11689	5 T.W.	2 $\frac{1}{8}$ x 17 $\frac{1}{2}$ x $2\frac{3}{4}$	2 40
11690	6 T.W.	2 $\frac{1}{8}$ x 21 $\frac{1}{8}$ x $2\frac{3}{4}$	2 85



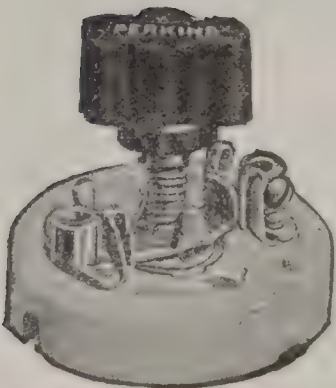
No. 2 T. W. Tandem Wall Case

Wall Cases are made of sheet steel and are japanned. They have four outlets in the bottom for $\frac{3}{8}$ inch and two outlets in each end for $\frac{1}{4}$ inch flexible conduit. All outlets are plugged with blanks which are easily knocked out. Outlets are bushed so there are no rough edges to cut the insulation of the wire.

PERKINS SNAP SWITCHES.

CLEAT BASE—220 VOLTS.

List No.	Mfg. No.		Std. pkg.	Price.
6785	2000	5 amperes.....Single pole.....	250.....	\$0.32
6786	2001	10 "	100.....	40



List No. 6785.

CONCEALED BASE.

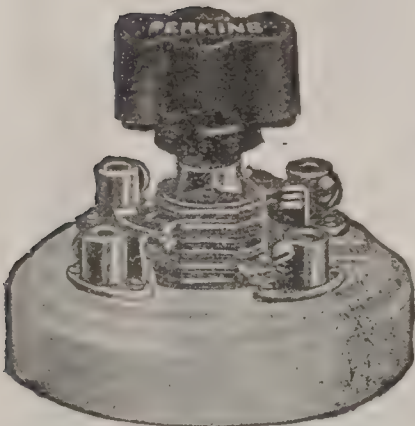
List No.	Mfg. No.		Std. pkg.	Price.
6787	2009	10 amperes.....Double pole.....	100.....	\$0 66
6788	2011	20 "	10.....	1 20
6789	2013	30 "	10.....	1 50
6790	2015	50 "		3 00

MOULDING BASE.

List No.	Mfg. No.		Std. pkg.	Price.
6791	2017	10 amperes.....Double pole.....	100.....	\$0 66
6792	2019	20 "	10.....	1 20
6793	2021	30 "	10.....	1 50
6794	2023	50 "		3 00
6795	2025	15 "	Triple pole	1 60

CLEAT BASE, METAL COMMUTATOR.

List No.	Mfg. No.		Std. pkg.	Price.
6796	2002	5 amperes.....Single pole.....	100.....	\$0 40
6798	2027	5 "	3 Point	50
6799	2030	10 "	3-Point	60



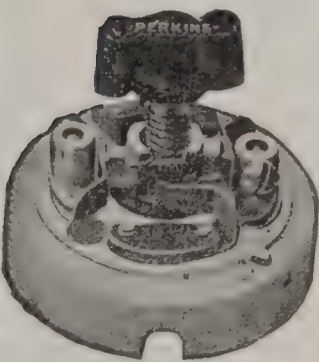
List No. 6787.

CONCEALED BASE, METAL COMMUTATOR.

List No.	Mfg. No.		Std. pkg.	Price.
6800	2170	5 amperes.....Single pole.....	100.....	\$0 40
6802	2175	5 "	3-Point	50
6803	2176	10 "	3-Point	60

CLEAT BASE, VULCABESTON COMMUTATOR.

List No.	Mfg. No.		Price.
6804	2033	10 amperes..... 4-Point	\$0 66



List No. 6798.

CONCEALED BASE, VULCABESTON COMMUTATOR.

List No.	Mfg. No.		Price.
6805	2183	10 amperes..... 4-Point	\$0 66

SNAP SWITCHES—500 VOLTS.

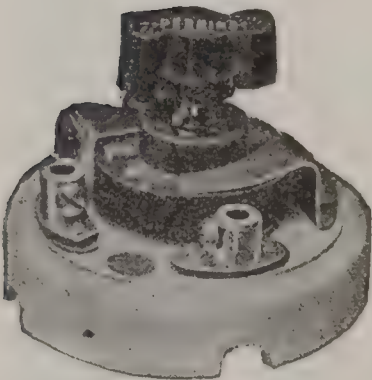
List No.	Mfg. No.		Price.
6806	2003	3 amp., Single pole, cleat base..	50..... \$0 40
6807	2100	5 " 3-Point, cleat base.....	66
6808	2028	3 " 2 Circuit, cleat base.....	66
6809	2171	3 " S. P. concealed " ..	50..... 40
6810	2179	5 " 3-Point.....	66
6811	2181	3 " 2 Circuit.....	66

MOULDING BASE.

List No.	Mfg. No.		Price.
6813	2018	10 amperes.....Double pole.....	\$0 78
6814	2020	20 "	1 32
6815	2022	30 "	1 62
6816	2024	50 "	3 12

CONCEALED BASE.

List No.	Mfg. No.		Price
6817	2010	10 amperes.....Double pole.....	\$0 78
6818	2012	20 " "	1 32
6819	2014	30 " "	1 62
6820	2016	50 " "	3 12
6821	2184	10 " 4-Point	78



List No. 6807.

PERKINS SNAP SWITCHES.

Lock Snap Electrolier Switches.
Concealed Base—220 Volt.

List No.	Mfg. No.		Price.
6825	2026	10 amperes....Triple pole	\$1 72

Lock Snap, Cleat Base—500 Volt.

List No.	Mfg. No.		Price.
6826	2101	5 amperes... Single pole.....	\$0 78
6827	2029	3 "2 Circuit.....	78

Concealed Base.

List No.	Mfg. No.		Price.
6828	2180	5 amperes.....	\$0 78
6829	2182	3 "2 Circuit.....	78

Lock Snap Dial Switches.

Concealed Base—220 Volt.

List No.	Mfg. No.		Price.
6830	2037	10 amperes....Double pole.....	\$0 88
6831	2039	20 " "	1 42
6832	2041	30 " "	1 72
6833	2043	50 " "	3 22
6834	2045	15 "Triple pole.....	1 82

Moulding Base—220 Volt.

List No.	Mfg. No.		Price.
6835	2051	10 amperes....Double pole.....	\$0 88
6836	2053	20 " "	1 42
6837	2055	30 " "	1 72
6838	2057	50 " "	3 22

Lock Snap Dial Switches.—500 Volt.

Concealed Base.

List No.	Mfg. No.		Price.
6839	2059	3 amperes....Single pole	\$0 70
6840	2102	5 " "	88
6841	2061	10 " "	1 72
6842	2063	3 "2 Circuit.....	88

Moulding Base.

List No.	Mfg. No.		Price.
6843	2065	3 amperes... Single pole.....	\$0 70
6844	2104	5 " "	88
6845	2067	10 " "	1 78
6846	2069	3 "2 Circuit.....	88

Snap Dial Switches.

Concealed Base—220 Volt.

List No.	Mfg. No.		Std. pkg.	Price.
6847	2035	5 amperes....Single pole.....	30.....	\$0 42
6848	2036	10 " "	30.....	50
6849	2038	10 "Double pole....	30.....	76
6850	2040	20 " "	10.....	1 30
6851	2042	30 " ..... " .....	.....	1 60
6852	2044	50 " ..... " .....	.....	3 10
6853	2046	15 "Triple pole...	.....	1 70

Snap Dial Switches.—500 Volt.

Concealed Base.

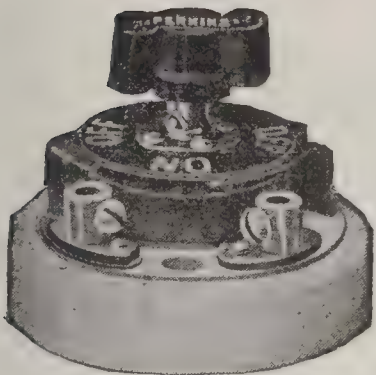
List No.	Mfg. No.		Std. pkg.	Price.
6854	2058	3 amperes....Single pole....	50.....	\$0 60
6855	2049	5 " "	25.....	1 20
6856	2060	10 " "	50.....	2 40
6857	2062	3 "2 Circuit.....	25.....	1 20

Moulding Base.

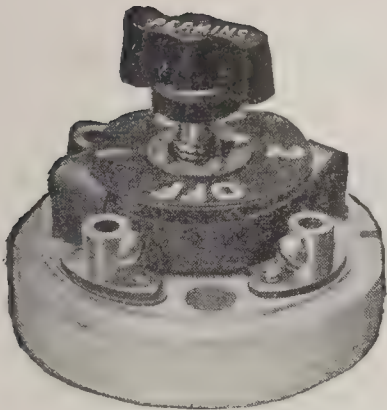
List No.	Mfg. No.		Std. pkg.	Price.
6858	2064	3 amperes....Single pole....	30.....	\$0 58
6859	2103	5 " "	10.....	76
6860	2066	10 " "	50.....	1 60
6861	2068	3 "2 Circuit.....	.....	76

Fused Snap Switches.

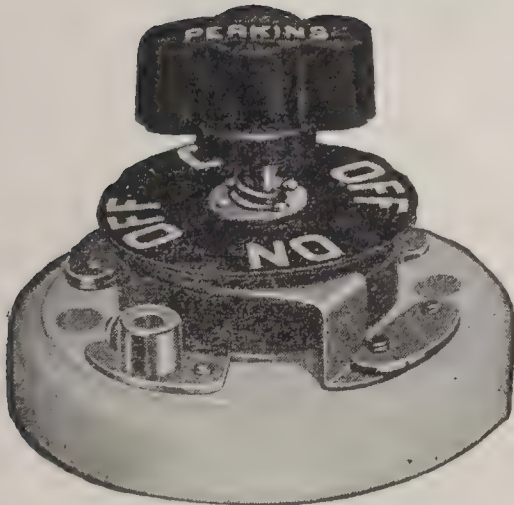
List No.	Mfg. No.		Std. pkg.	Price.
6863	2077	3 amperes, Single pole, 500 Volt.	10..	\$1 60
6864	2078	3 " Headlight Switch, 500 Volt ....	.....	1 60



List No. 6855.

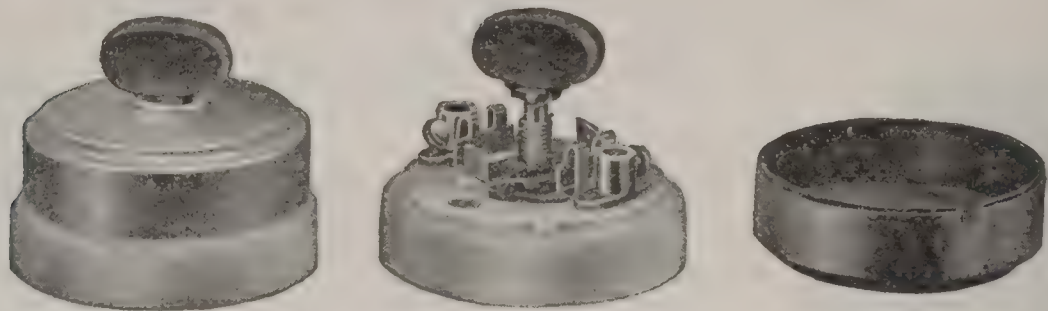


List No. 6857.



List No. 6856.

G. E. SINGLE POLE SNAP SWITCH.



Exterior and Interior of Single-Pole Snap Switch.

An improvement in snap switches will be found in the switch shown in the accompanying illustration. This switch is of the single-pole type, is compact and attractive in appearance and of substantial construction. The operating mechanism is positive and rapid in action and contains very few parts, thus reducing to a minimum the liability of trouble as a result of wear. The switch has a rating of 10 amperes at 110 volts, or 5 amperes at 220 volts, and meets all the requirements of the Board of Fire Underwriters. The cover has a fibre lining and the standard finish is nickel, though other finishes can be supplied on special order.

List No.		Standard Package.	Price.
34264	Single-Pole Snap Switch, 10 amperes, 110 volts, or 5 amperes, 220 volts	100	\$0 12

G. E. Ceiling Switch.



List No. 30342.

Especially adapted for the turning on and off of Arc lamps. Can be fitted with pendant and cord for any height ceiling.

List No.		Price.
30342	Single-pole ceiling switch, 3 amperes, 220 volts; 6 amperes 110 volts, nickel finish	\$1 25



List No. 11692.

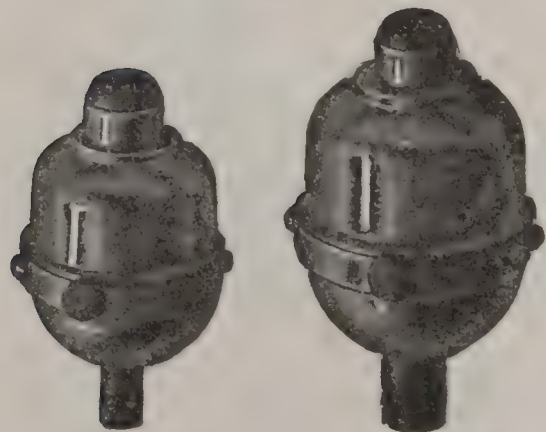
Hubbell Pull Switch.

A convenient device for controlling the current several feet from the switch. One pull makes contact and the next pull opens the circuit.

List No.		Price Each.
11692	5 Ampere Pull Switch with 8 inch chain.	\$0 70

For longer lengths than 8 inches add 10 cents per foot.

G. E. Pendant Switches.

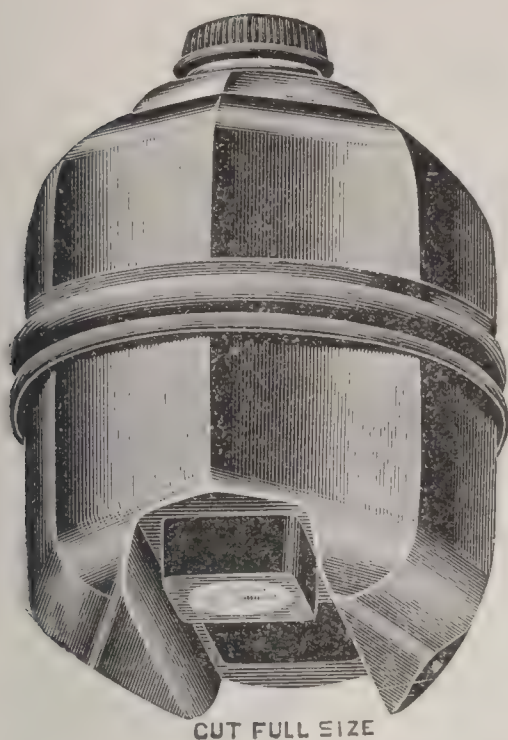


List No. 50712.

List No. 50725.

List No.		Std. Pkg.	Price Each.
50712	Pendant Push Button Switch, 5 amp., 125 volts.	100	\$0 50
50725	Pendant Push Button Switch, 3 amp., 220 volts, or 6 amp., 110 volts, double break.	100	80

SARCO PENDANT SWITCH.



CUT FULL SIZE

Artistic in appearance.

Easy to operate.

Quick make and quick break.

Can't burn out on 10 amperes.

Inlaid pearl lighting button, with depressed put-out button.

Cannot get grounded or short circuited.

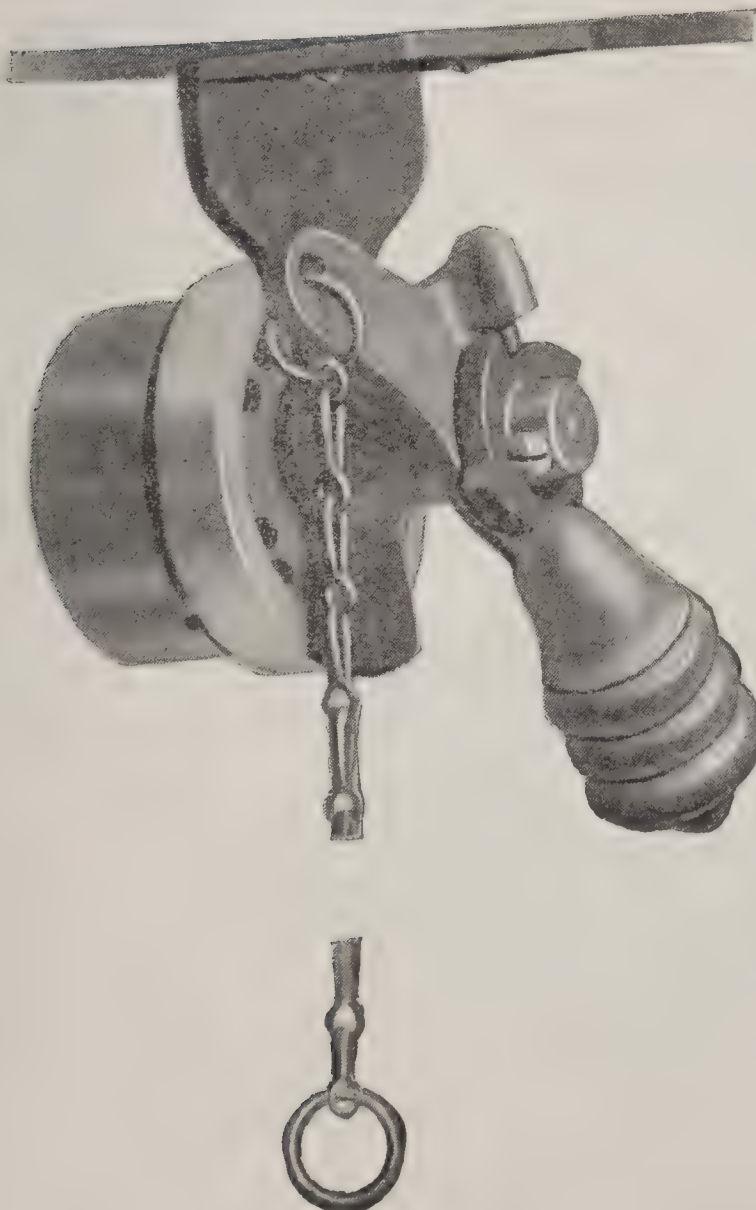
Can be used for reinforced as well as regular cord, as it has an interchangeable reduction bushing.

Connected in 10 seconds, as the two outside shells screw together, and switch has top connections.

List No.

Price.

15890 Pendant Switch, Polished Brass... .. \$0 70
Other Finishes to order.



Krantz Ceiling Switch.

The controlling mechanism of this switch is reset by gravity which makes its action more positive than any other of its kind as a spring reset is not always reliable. A "Diamond H" 250 Volt Double Pole Snap Switch is used. The frame work is nickel plated.

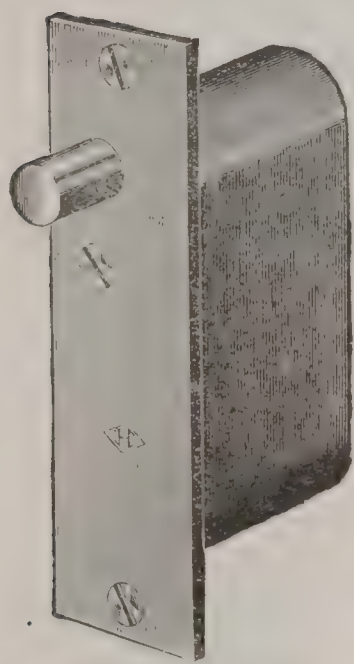
List
No.

Price.

15895 Ceiling Switch, complete..... \$2 50

“DIAMOND H” DOOR SWITCHES.

For Automatically Operating a Light Upon the Opening and Closing of a Door in Telephone Booths, Bank Vaults, Toilets, Closets, Etc.

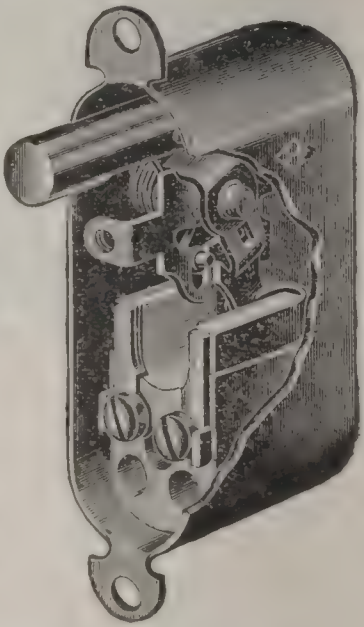


Switch Complete.

The case or box enclosing the switch is made of cold rolled steel. The face plate and strike are of brass, $\frac{3}{8}$ inch thick.

The contacts are attached to a porcelain block, held in the case by a screw through its center.

The part making the connection between the two spring bronze contacts, is carried by a swinging arm driven by the switch mechanism.



This contact-making piece is insulated from the mechanism by sheet mica.

The mechanism is positive and durable.

The switch is wired from the front.

Switch No. 7076 turns the light on when the door is open, and off when the door is shut.

No. 7077 turns the light on when the door is closed, and off when the door is open.

Automatically lights and extinguishes an electric lamp in such a manner that the light is turned on only when it is needed.

To illustrate: Take as an example, a telephone booth with a lamp inside. When the door is shut, the light is turned off. Open it, and the light is turned on.

After entering, shut the door, and the light remains on.

Open it to go out, and the light is turned off.

Shut it after going out, and the light remains turned off.

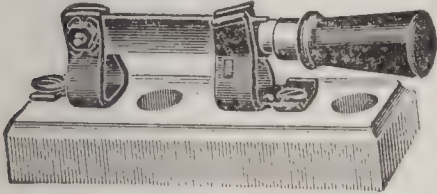
List No.		Price.
7076	Light "on" when door is opened.....	\$2 50
7077	Light "off" when door is opened.....	2 50
7079	Every other time.....	3 00
7078	Iron box for conduit work.....	30

PORCELAIN BASE SWITCHES.

For 125 and 250 Volts.

National Electrical Code Standard.

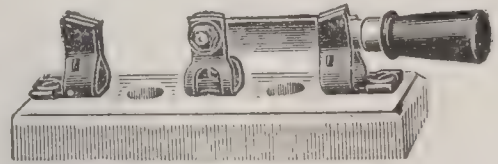
The switches listed on this page are correctly designed to fulfill the requirements of the National Electrical Code in every feature. Several unique features are embodied in the switches which strengthen them and make them very desirable.



List No. 11734. S. P. S. T.

125 VOLT, SINGLE POLE.

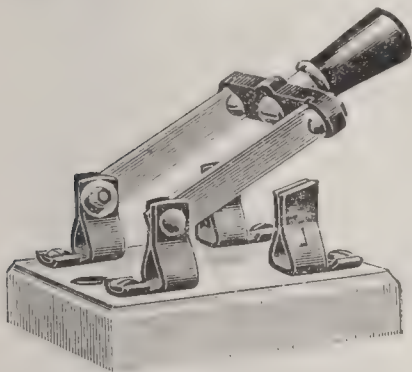
List No.		Std. Pkg	Price.
7097	15 Amp., S. P., S. T.....	100	\$0 34
7098	25 " " " ".....	100	44
7099	15 " " D. T.....	100	60
7100	25 " " " ".....	100	74



List No. 11736. S. P. D. T.

250 VOLT, SINGLE POLE.

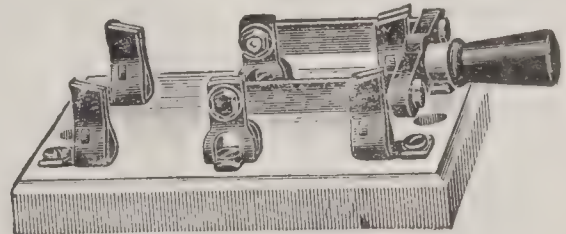
List No.		Std. Pkg.	Price.
11734	15 Amp., S. P., S. T....	100	\$0 40
11735	25 " " " ".....	100	50
11736	15 " " D. T....	100	68
11737	25 " " " ".....	100	84



List No. 11738. D. P. S. T.

125 VOLT, DOUBLE POLE.

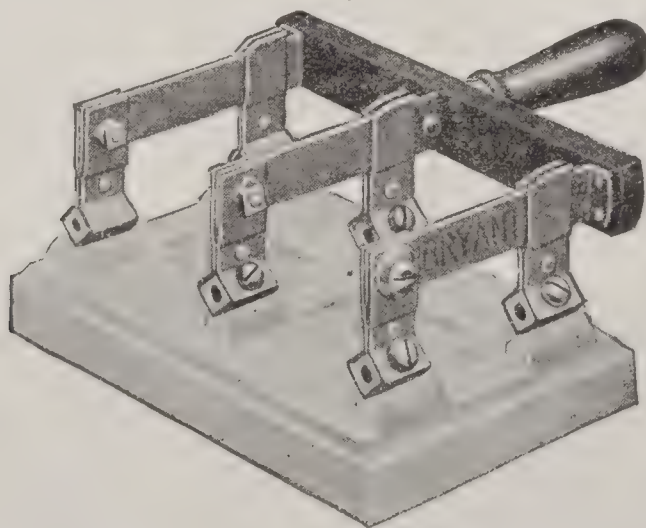
List No.		Std. Pkg.	Price.
7101	15 Amp., D. P., S. T....	250	\$0 42
7102	25 " " " ".....	250	50
7103	15 " " D. T....	100	74
7104	25 " " " ".....	100	90



List No. 11740. D. P. D. T.

250 VOLT, DOUBLE POLE.

List No.		Std. Pkg.	Price.
11738	15 Amp., D. P., S. T.. ...	250	\$0 50
11739	25 " " " ".....	250	60
11740	15 " " D. T.	100	86
11741	25 " " " ".....	100	1 04



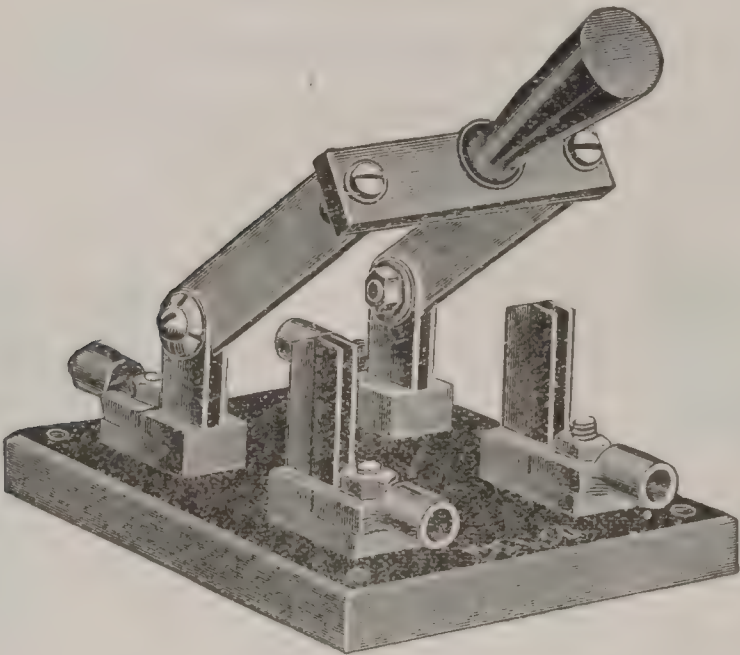
125 VOLT, THREE POLE.

List No.		Std. Pkg.	Price.
7105	15 Amp., T. P., S. T....	25	\$0 90
7106	25 " " " ".....	25	1 10

250 VOLT, THREE POLE.

List No.		Std. Pkg.	Price.
11742	15 Amp., T. P., S. T ..	25	\$1 04
11743	25 " " " ".....	25	1 30

STYLE H SWITCHES.
All Copper Single Break.



300 Volt.

Without Fuse Connection.

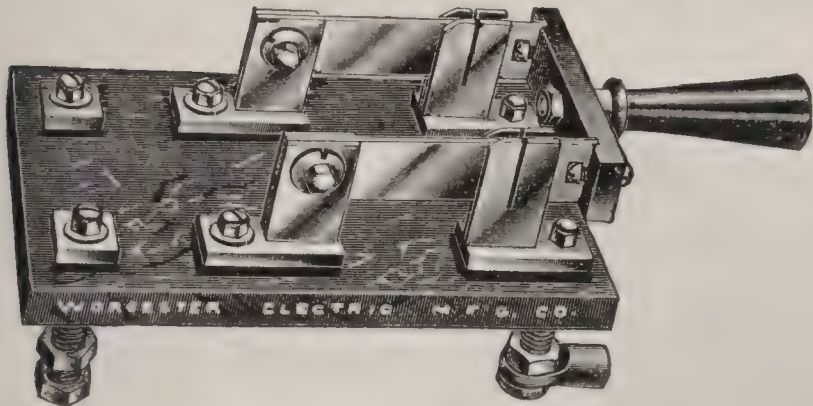
List No.	Amp.	S. P. S. T.	S. P. D. T.	D. P. S. T.	D. P. D. T.	3-Pt. S. T.	3-Pt. D. T.
11745	35	\$2.00	\$3.00	\$3.00	\$4.50	\$4.50	\$6.75
11746	50	2.65	4.00	4.00	6.00	6.00	9.00
11747	75	3.35	5.00	5.00	7.50	7.50	11.25
11748	100	4.00	6.00	6.00	9.00	9.00	13.50
11749	200	5.35	8.00	8.00	12.00	12.00	18.00
11750	300	6.65	10.00	10.00	15.00	15.00	22.50
11751	400	8.45	12.65	12.65	19.00	19.00	28.50
11752	500	10.00	15.00	15.00	22.50	22.50	33.75
11753	600	11.10	16.80	16.80	25.00	25.00	37.50
11754	800	15.60	23.40	23.40	35.00	35.00	52.50
11755	1000	22.25	33.40	33.40	50.00	50.00	75.00
11756	1250	43.60	65.40	65.40	98.00	98.00	147.00
11757	1750	64.90	97.40	97.40	146.00	146.00	219.00
11758	2000	87.00	130.00	130.00	195.00	195.00	292.50

With Fuse Connection.

List No	Amp.	S. P. S. T.	S. P. D. T.	D. P. S. T.	D. P. D. T.	3-Pt. S. T.	3-Pt. D. T.
11760	35	\$2.50	\$4.00	\$3.75	\$6.00	\$5.65	\$9.00
11761	50	3.35	5.35	5.00	8.00	7.50	12.00
11762	75	4.15	6.65	6.25	10.00	9.35	15.00
11763	100	5.00	8.00	7.50	12.00	11.25	18.00
11764	200	6.65	10.65	10.00	16.00	15.00	24.00
11765	300	8.35	13.35	12.00	20.00	18.75	30.00
11766	500	10.60	16.90	15.80	25.00	23.75	38.00
11767	600	12.50	20.00	18.75	30.00	28.15	45.00
11768	800	13.90	22.25	20.85	33.35	31.25	50.00
11769	1000	19.50	31.10	29.20	46.70	43.75	70.00
11770	1250	27.30	44.50	41.70	66.70	62.50	100.00
11771	1750	54.45	87.10	81.70	130.70	122.50	196.00
11772	2000	81.10	129.80	121.70	194.70	182.50	292.00
11773	2500	180.35	173.35	162.50	260.70	243.75	390.00

Plain finish, Front Connection Switches only are listed.
Polished Switches 30 per cent. extra. 600 Volt Switches 25 per cent. extra.

BACK CONNECTION SINGLE BREAK SWITCHBOARD SWITCH.



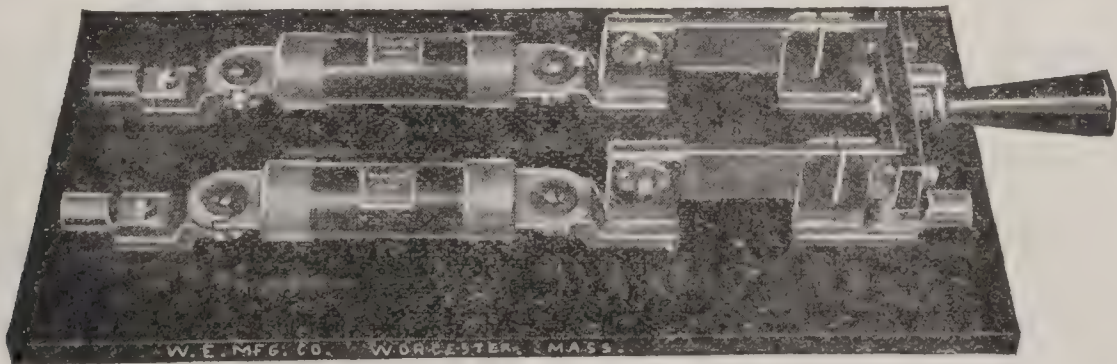
Regularly furnished for direct bus bar connections at one end and with cable lugs at the other end, unless otherwise specified. Shipped mounted on temporary wood templets. Made for 125 to 250 and 500 volts.

With Fuse Connections.
Price Each.

SINGLE THROW.					DOUBLE THROW.				
List No.	Amp.	S. P.	D. P.	3-P.	List No.	S. P.	D. P.	3-P.	Amp.
11774	25	\$1.48	\$1.84	\$2.80	11798	\$2.20	\$2.66	\$4.50	25
11775	35	1.84	2.38	3.60	11799	2.74	3.54	5.44	35
11776	50	2.20	2.90	4.40	11800	3.34	4.40	6.54	50
11777	75	3.22	4.84	7.34	11801	4.80	7.34	11.00	75
11778	100	4.00	6.00	9.06	11802	6.00	9.00	13.66	100
11779	150	6.00	9.00	13.54	11803	8.26	12.40	18.60	150
11780	200	7.28	10.88	16.26	11804	9.90	15.00	22.50	200
11781	300	9.00	13.54	20.26	11805	12.22	18.38	27.60	300
11782	400	11.54	17.26	25.86	11806	15.98	24.00	36.00	400
11783	600	15.46	23.26	34.86	11807	21.44	32.24	48.76	600
11784	800	22.14	33.00	49.50	11808	28.94	43.50	66.00	800
11785	1000	33.20	49.50	74.24	11809	43.42	65.24	99.00	1000

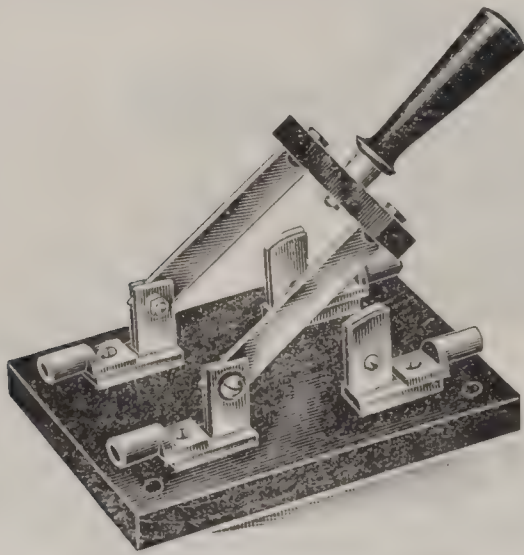
Without Fuse Connections.

SINGLE THROW.					DOUBLE THROW.				
List No.	Amp.	S. P.	D. P.	3-P.	List No.	S. P.	D. P.	3 P.	Amp.
11786	25	\$1.02	\$1.20	\$1.84	11810	\$1.48	\$1.84	\$2.80	25
11787	35	1.26	1.58	2.38	11811	1.84	2.38	3.60	35
11788	50	1.48	1.98	2.90	11812	2.20	2.90	4.40	50
11789	75	2.46	3.22	4.84	11813	3.22	4.84	7.34	75
11790	100	2.66	4.00	6.02	11814	4.00	6.02	9.46	100
11791	150	4.88	7.50	11.24	11815	6.60	9.90	14.86	150
11792	200	6.00	9.00	13.50	11816	7.94	12.00	18.00	200
11793	300	7.14	11.26	16.88	11817	9.90	15.00	22.50	300
11794	400	9.46	14.26	21.38	11818	12.72	19.12	28.88	400
11795	600	12.14	18.24	27.34	11819	16.72	25.12	37.70	600
11796	800	17.54	26.26	39.38	11820	22.88	34.88	52.50	800
11797	1000	26.32	39.34	59.06	11821	34.32	52.32	78.76	1000



Type "E" Switch arranged for enclosed Fuses. See next page for list.

TYPE "E" SWITCHES.



Type "E," 250 Volt Spacing.

PLAIN FINISH, FRONT CONNECTION, WITHOUT FUSE CONNECTION.

List No.	Amp.	S. P.	S. P.	D. P.	D. P.	T. P.	T. P.
		S. T.	D. T.	S. T.	D. T.	S. T.	D. T.
16150	25	\$0 55	\$0 75	\$0 75	\$1 25	\$1 35	\$1 80
16151	35	65	85	90	1 40	1 45	1 95
16152	50	80	1 05	1 15	1 80	1 90	2 55
16153	75	90	1 20	1 50	2 00	2 10	2 80
16154	100	1 35	1 80	2 25	3 00	3 15	4 20
16155	150	2 35	3 15	3 90	5 20	5 45	7 25
16156	200	3 40	4 55	5 65	7 55	7 90	10 55
16157	300	3 95	5 25	6 55	8 65	9 15	12 20
16158	400	4 55	6 05	7 60	10 15	10 65	14 20
16159	500	5 75	7 65	9 55	12 65	13 35	17 80
16160	600	9 25	12 35	15 40	20 55	21 55	28 75
16161	800	10 05	13 40	16 75	22 35	23 45	31 15
16162	1000	12 65	16 85	21 05	28 05	29 45	40 30
16163	1200	18 35	21 45	30 60	40 80	42 85	56 85

Type "B" Switches with Clips for National Electrical Code Standard.

ENCLOSED FUSES, FRONT CONNECTION.

List No.	Amp.	Type Fuse.	S. P.	S. P.	D. P.	D. P.	T. P.	T. P.
			S. T.	D. T.	S. T.	D. T.	S. T.	D. T.
16164	25	B	\$1 09	\$1 53	\$1 88	\$2 71	\$2 67	\$3 84
16165	35	B	1 20	1 75	2 10	3 05	3 00	4 40
16166	50	B	1 45	2 05	2 45	3 55	3 45	5 00
16167	75	E	1 80	2 55	3 10	4 65	4 40	6 65
16168	100	E	2 40	3 45	4 10	6 00	5 80	8 55
16169	150	E	3 74	5 43	6 43	9 41	9 12	13 44
16170	200	E	4 94	7 03	9 43	12 11	10 92	17 19
16171	300	E	6 05	8 85	10 50	15 60	14 95	22 35
16172	400	E	6 90	10 00	11 90	17 45	16 90	24 95
16173	500	E	8 85	12 85	15 30	22 55	21 75	32 20
16174	600	E	12 80	18 15	21 90	31 35	31 00	44 55

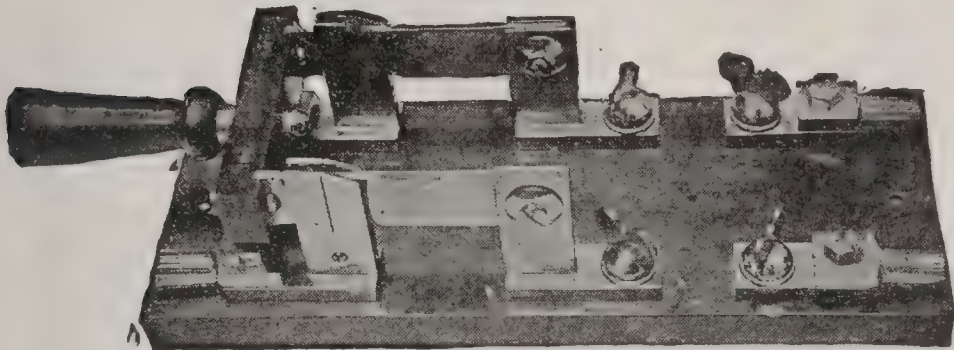
For polished or draw file finish add 25 per cent. to list.

For 500 Volt switches add 15 per cent. to list.

For double break switches add 33 1-3 per cent. to list.

Prices for back connection switches on application.

STYLE "B" SINGLE BREAK—250 VOLT.
Front or Back Connection.



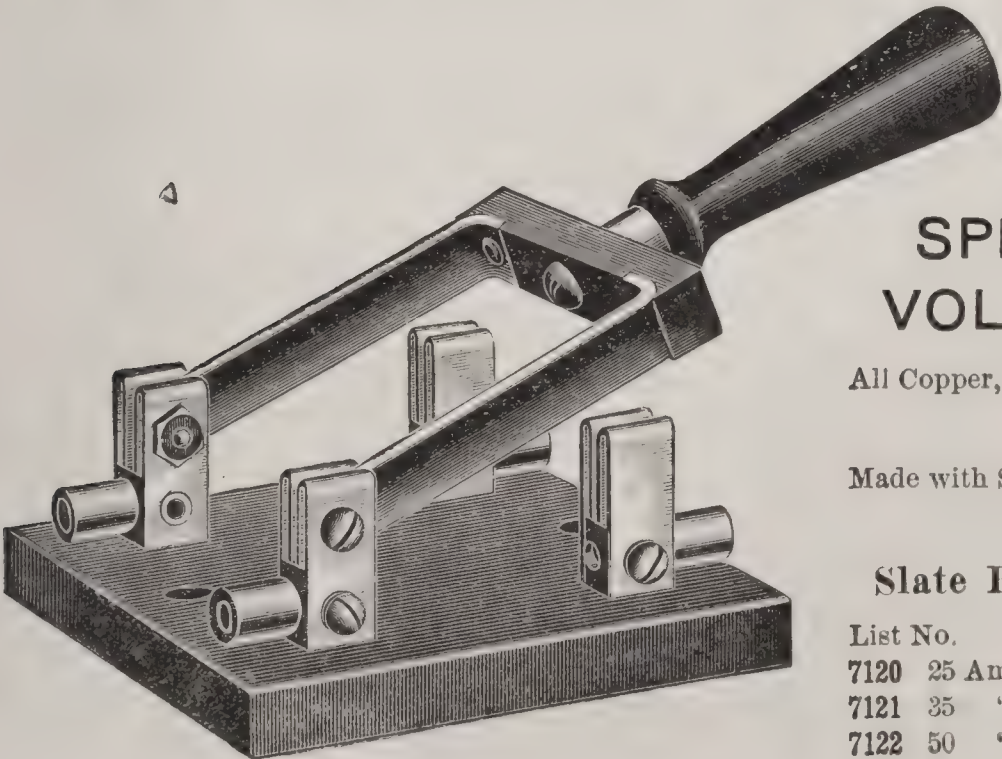
This Style "B" Switch is an all copper single break switch, highly polished and nicely proportioned, and is built in any capacity for any voltage, front or back connection, and can be fused on handle or hinge end, as desired.

With Fuse Connection.

List No.	Amp.	S. P. S. T.	D. P. S. T.	3-P. S. T.	S. P. D. T.	D. P. D. T.	3-P. D. T.
11850	25	\$1 56	\$2 80	\$3 80	\$2 72	\$4 64	\$6 60
11851	50	3 60	6 00	8 40	5 60	9 60	13 60
11852	75	4 00	7 36	9 40	6 20	12 00	18 00
11853	100	5 44	9 60	12 40	9 20	16 40	22 40
11854	150	6 40	11 00	15 20	9 80	17 60	24 00
11855	200	7 20	12 00	16 00	10 80	20 00	29 20
11856	300	8 40	14 20	20 40	13 60	24 00	36 90
11857	400	9 84	16 80	24 00	16 80	28 80	41 60
11858	600	13 60	22 80	33 60	24 00	40 00	58 40
11859	800	28 00	50 00	74 00	48 00	87 00	131 00
11860	1200	42 00	84 00	134 00	75 00	149 00	222 00
11861	1800	61 00	105 00	150 00	105 00	180 00	300 00

Without Fuse Connection.

List No.	Amp.	S. P. S. T.	D. P. S. T.	3-P. S. T.	S. P. D. T.	D. P. D. T.	3-P. D. T.
11862	25	\$1 40	\$2 56	\$3 44	\$2 40	\$4 20	\$5 92
11863	50	3 20	5 44	7 60	4 96	8 48	12 00
11864	75	3 60	6 60	8 56	5 60	10 80	16 00
11865	100	4 80	8 64	11 20	8 00	14 40	20 00
11866	150	5 76	9 80	13 60	8 60	15 60	21 60
11867	200	6 40	10 72	14 40	9 60	17 60	25 60
11868	300	7 60	12 80	18 40	12 00	21 60	32 00
11869	400	8 96	15 20	21 60	14 40	25 60	36 00
11870	600	12 40	20 80	31 20	21 20	36 00	52 00
11871	800	26 00	46 00	65 00	42 00	79 00	118 00
11872	1200	39 00	78 00	124 00	68 00	133 00	220 00
11873	1800	55 00	94 00	140 00	94 00	160 00	240 00



SPECIAL 500
VOLT SWITCH.

All Copper, strictly high grade polished switch.

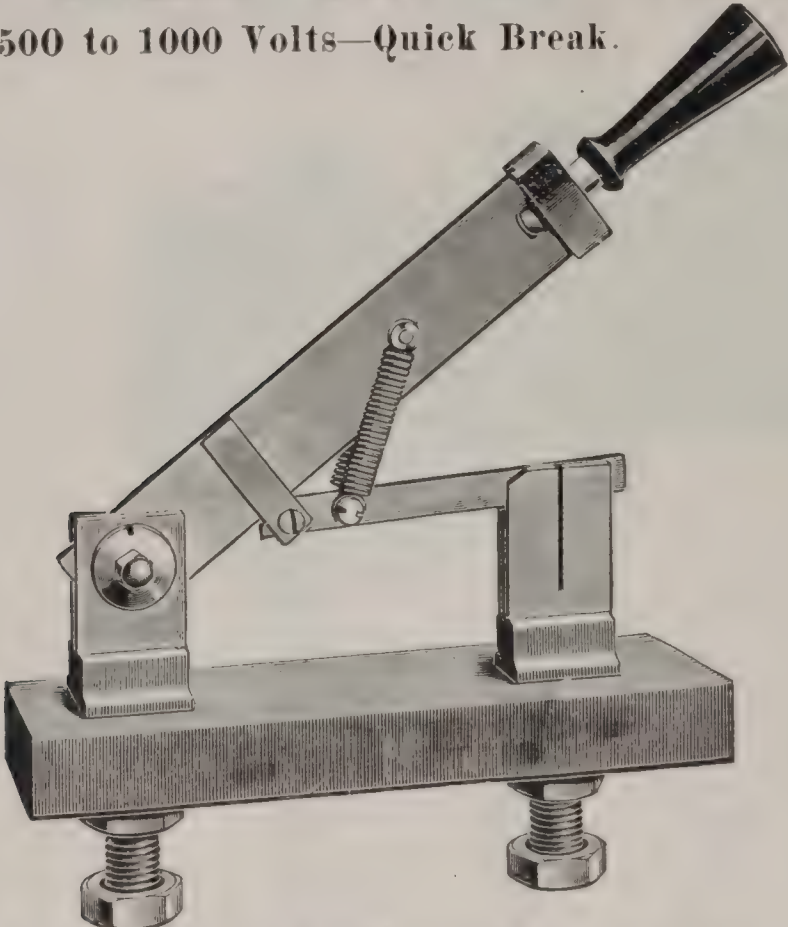
Made with Spring Fingers which insures good contact.

Slate Base, without Fuse.

List No.	Price.
7120 25 Amp., D. P., S. T.....	\$1 50
7121 35 " " "	2 00
7122 50 " " "	3 00

QUICK BREAK SWITCH. TYPE "D."

500 to 1000 Volts—Quick Break.



This Switch is made single, double or triple pole, single or double throw, single or double break, front or back connections.

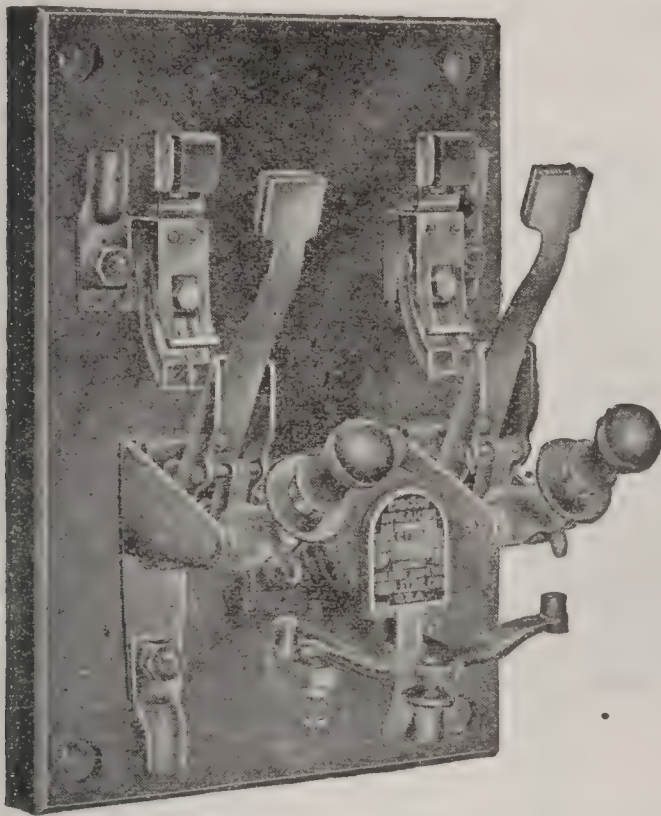
With Fuse Connections.

Price Each. SINGLE THROW.					Price Each. DOUBLE THROW.				
List No.	Amp.	S. P.	D. P.	3-P.	List No.	S. P.	D. P.	3-P.	Amp.
11875	50	\$4.30	\$6.30	\$9.50	11895	\$6.70	\$10.00	\$15.20	50
11876	75	5.30	7.90	11.80	11896	8.40	12.60	18.90	75
11877	100	6.30	9.50	14.30	11897	10.00	15.20	22.80	100
11878	200	8.40	12.40	18.90	11898	13.50	20.20	30.30	200
11879	300	10.50	15.80	23.60	11899	16.80	25.20	37.90	300
11880	400	13.30	20.00	29.90	11900	21.40	32.00	48.00	400
11881	500	15.80	23.60	35.50	11901	25.20	37.90	56.80	500
11882	600	17.50	26.40	39.20	11902	28.00	42.00	63.20	600
11883	800	24.60	36.80	55.20	11903	39.20	58.80	88.00	800
11884	1000	35.00	53.60	78.40	11904	56.00	84.00	126.00	1000

Without Fuse Connections.

Price Each. SINGLE THROW.					Price Each. DOUBLE THROW.				
List No.	Amp.	S. P.	D. P.	3-P.	List No.	S. P.	D. P.	3-P.	Amp.
11885	50	\$3.40	\$5.00	\$7.60	11905	\$5.00	\$7.60	\$11.40	50
11886	75	4.30	6.30	9.50	11906	6.30	9.50	14.30	75
11887	100	5.00	7.60	11.40	11907	7.60	11.40	17.00	100
11888	200	6.70	10.00	15.20	11908	10.00	15.20	22.80	200
11889	300	8.40	12.60	18.90	11909	12.60	18.90	28.40	300
11890	400	10.60	16.00	24.00	11910	16.00	24.00	36.00	400
11891	500	12.60	19.00	28.40	11911	19.00	28.40	42.40	500
11892	600	14.00	21.00	31.60	11912	21.00	31.60	47.20	600
11893	800	19.60	29.50	44.00	11913	29.50	44.00	66.40	800
11894	1000	28.00	42.00	63.00	11914	42.00	63.00	94.40	1000

For Double Break add 25 per cent.



AUTOMATIC CARBON
BREAK CIRCUIT
BREAKERS.

Type C, Form G.

Type C, Form G Circuit Breakers are suitable for every class of service requiring protective devices, and are used extensively in steel mills, machine shops, office buildings, etc. They are indispensable for general motor work, automobile charging sets, cranes and electrically driven machinery in general. All current carrying parts of the breaker are buffed and lacquered, and the links, pins, etc., have a black oxidized finish which effectually prevents corrosion. The remaining parts, including the slate base, are finished in dull black. Wrought copper terminals are supplied with all breakers.

The Type C, Form G Breaker can be furnished front connected, mounted on slate base, or back connected with extended studs for mounting directly on 1½ inch or 2 inch switch-board. In the latter case no base is included.

200 Amperes, 250 Volts. Double Pole.

250 Volts. Single Pole.

LIST NO.		*Amp. Capacity	TRIP POINT		Price
Front Connected	Back Connected		Min.	Max.	
35481	35505	15	10	25	\$12 00
35485	35509	25	15	40	13 00
35489	35513	50	25	75	14 00
35493	35517	100	50	150	17 00
35497	35521	200	100	300	25 00
35501	35525	300	200	450	30 00

Double Pole.

35482	35506	15	10	25	\$17 00
35486	35510	25	15	40	18 00
35490	35514	50	25	75	19 00
35494	35518	100	50	150	22 00
35498	35522	200	100	300	40 00
35502	35526	300	200	450	45 00

500 Volts. Single Pole.

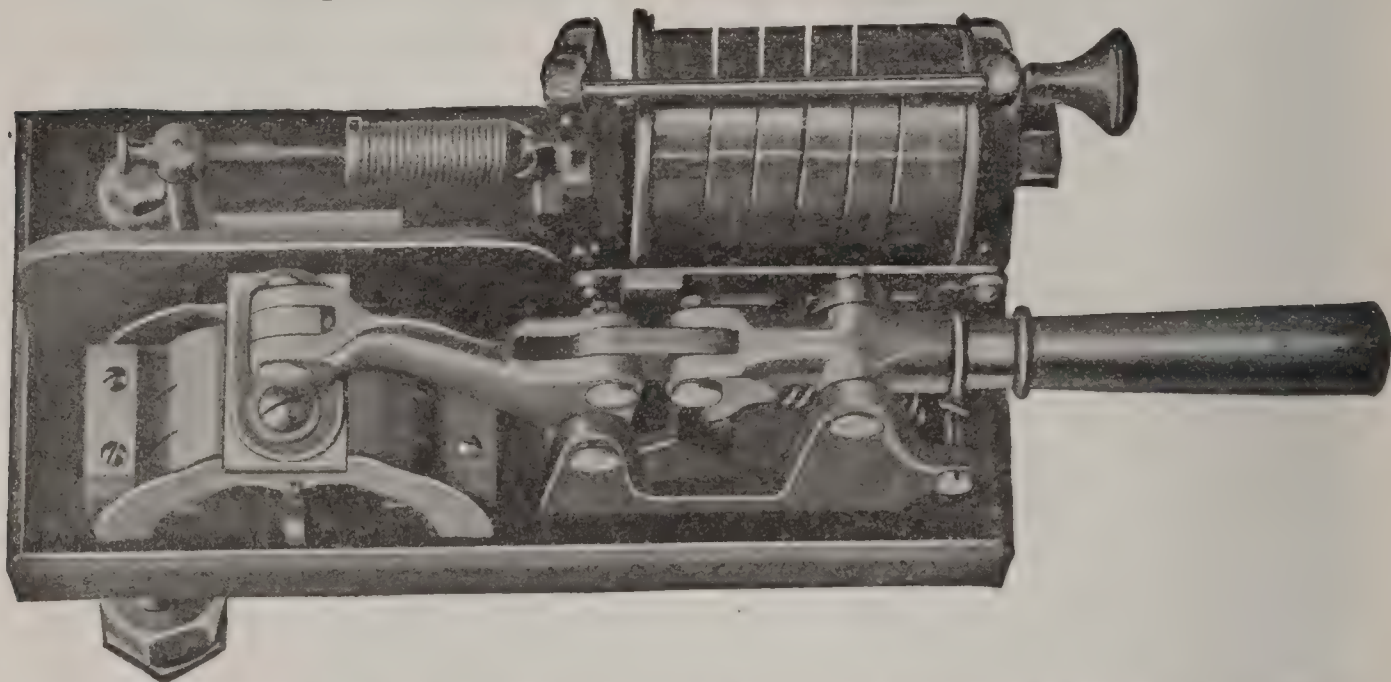
35483	35507	15	10	25	\$16 00
35487	35511	25	15	40	17 00
35491	35515	50	25	75	18 00
35495	35519	100	50	150	21 00
35499	35523	200	100	300	30 00
35503	35527	300	200	450	35 00

Double Pole.

35484	35508	15	10	25	\$21 00
35488	35512	25	15	40	22 00
35492	35516	50	25	75	23 00
35496	35520	100	50	150	25 00
35500	35524	200	100	300	45 00
35504	35528	300	200	450	50 00

*Ampere capacity denotes the load in amperes the breaker will carry continuously without excessive heating.

AUTOMATIC CIRCUIT BREAKER.
Type C, Form D, Single-Pole, 250 Volts.



The Type C Form D Circuit Breakers are designed for use on circuits up to 250 volts and with current capacities from 10 to 1200 amperes. They are built for either direct or alternating current service, and are made in both single and double-pole form. They are always furnished with bases and are arranged for back connection.

LIST NOS.	RATING.		MAX. CALIBRA-TION. AMP.	POLES.	Price Each.	ALTERNATING CURRENT.	
	Volts.	Amperes.				List No.	Price Each.
27754	250	10— 15	25	Single	\$35 00		
27755	250	10— 15	25	Double	50 00		
27756	250	15— 25	45	Single	35 00		
27757	250	15— 25	45	Double	50 00		
23811	250	25— 50	75	Single	35 00	23851	\$45 00
23812	250	25— 50	75	Double	50 00	23852	65 00
14313	250	50— 100	150	Single	35 00	19097	45 00
14314	250	50— 100	150	Double	50 00	19098	65 00
14315	250	75— 150	225	Single	35 00	19099	45 00
14316	250	75— 150	225	Double	50 00	19100	65 00
14317	250	150— 300	500	Single	65 00	19101	120 00
14318	250	150— 300	500	Double	90 00	19102	150 00
14319	250	300— 800	1200	Single	80 00		
	250	400— 600	1000	Single		19103	140 00
14320	250	300— 800	1200	Double	120 00		
	250	400— 600	1000	Double		19104	175 00
14321	250	800— 1200	1800	Single	100 00		
	250	800— 1000	1500	Single		19105	160 00
14322	250	800— 1200	1800	Double	160 00		
	250	800— 1000	1500	Double		19106	220 00

With Combined Overload and Underload Trip.

27730	250	10— 15	25	Single	\$55 00	Not made for alternating current circuits.
27731	250	10— 15	25	Double	70 00	
27732	250	15— 25	45	Single	55 00	
27733	250	15— 25	45	Double	70 00	
37734	250	25— 50	75	Single	55 00	
27735	250	25— 50	75	Double	70 00	
27736	250	50— 100	150	Single	55 00	
27737	250	50— 100	150	Double	70 00	
27741	250	75— 150	225	Single	55 00	
27745	250	75— 150	225	Double	70 00	
27748	250	150— 300	500	Single	90 00	
27749	250	150— 300	500	Double	115 00	
27750	250	300— 800	1200	Single	105 00	
27751	250	300— 800	1200	Double	145 00	
27752	250	800— 1200	1800	Single	125 00	
27753	250	800— 1200	1800	Double	185 00	

NOTE.—The first number in the Amp., rating denotes the lowest calibrating point, while the second number denotes the continuous current-carrying capacity.

AUTOMATIC CIR-
CUIT BREAKERS.

Type C, Form P, for Continuous
Current Circuits.

250 and 650 Volts.

CONSTRUCTION.

All current carrying parts are of polished
copper.

The operating mechanism has a smooth
dull black finish.

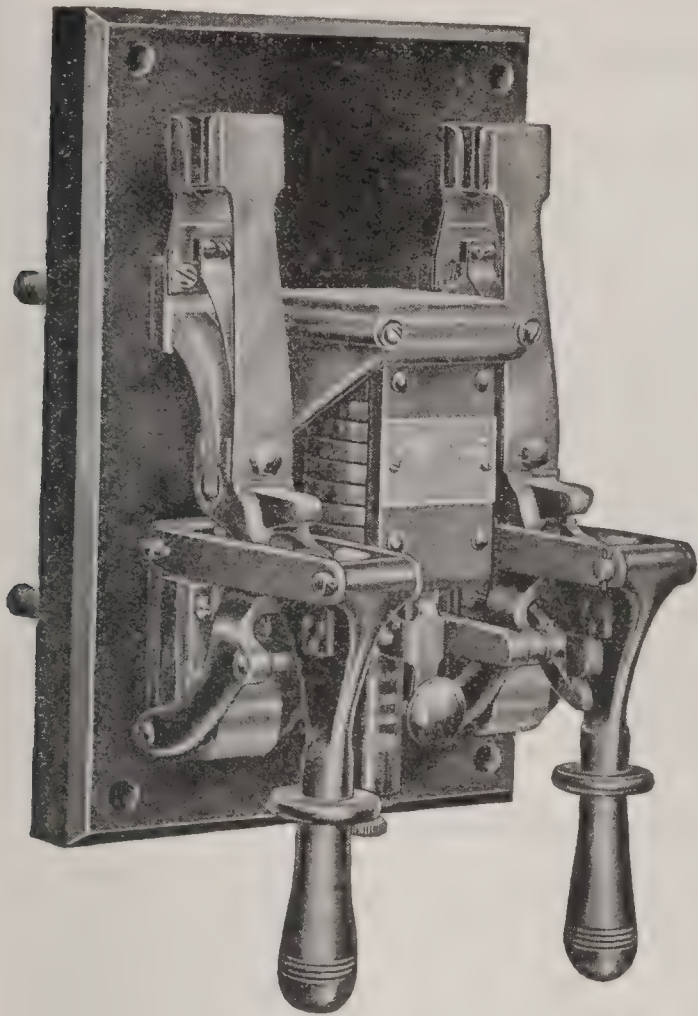
The carbon contacts are swetted into
clamping jaws (no screws are used) and liability
of breakage is reduced to a minimum.

No springs are used.

A laminated brush is employed that insures
an equal and positive pressure on each and
every lamination. This brush is easily adjusted
and automatically compensates for the ordinary
wear of the contact surface

The main laminated contacts are adequately
protected by auxiliary copper and carbon con-
tacts.

The type C, form P circuit breaker, is
amply proportioned, temperature rise being the
determining factor.



Direct Current.

Single Pole, 250 Volts, Back Connected.

LIST NO.		Amp. Capacity.	CALIBRATION.		Price.
On Base.	For 1½" or 2" Panel.		Min.	Max.	
36204	36231	15	10	25	\$35 00
36207	36234	25	15	45	35 00
36210	36237	50	25	75	37 00
36213	36240	100	50	150	42 00
36216	36243	200	100	300	50 00
36219	36246	300	200	450	60 00
36222	36249	500	300	750	75 00
36225	36252	800	500	1200	115 00
36228	36255	1200	800	1800	150 00

Single Pole, 650 Volts, Back Connected

36206	36233	15	10	25	\$38 00
36209	36236	25	15	45	38 00
36212	36239	50	25	75	40 00
36215	36242	100	50	150	45 00
36218	36245	200	100	300	55 00
36221	36248	300	200	450	65 00
36224	36251	500	300	750	80 00
36227	36254	800	500	1200	120 00
36230	36257	1200	800	1800	160 00

Double Pole, 250 Volts, Back Connected.

36205	36232	15	10	25	\$52 00
36208	36235	25	15	45	52 00
36211	36238	50	25	75	55 00
36214	36241	100	50	150	60 00
36217	36244	200	100	300	70 00
36220	36247	300	200	450	90 00
36223	36250	500	300	750	120 00
36226	36253	800	500	1200	200 00
36229	36256	1200	800	1800	250 00

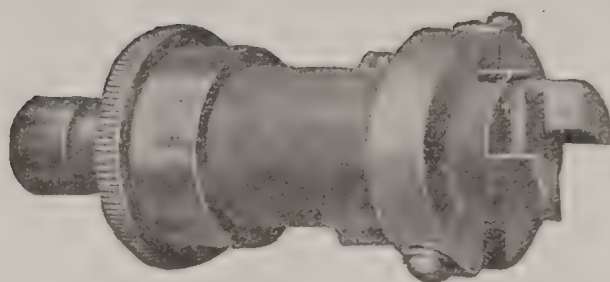
NOTE.—Ampere capacity denotes the load which the breaker will carry continuously without ex-
cessive heating.

NOTE.—All circuit breakers of capacities up to and including 1200 amperes are supplied with the
necessary nuts and terminals. Breakers of capacities over 1200 amperes are supplied with two nuts
only on each stud and no terminals.

CIRCUIT BREAKER AUXILIARY SWITCHES.

For Type C, Form P, Circuit Breakers.

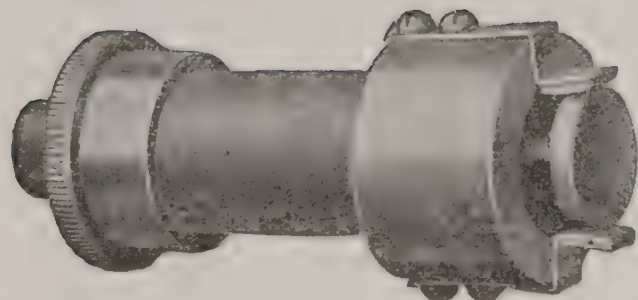
Circuit-Closing Auxiliary Switch.



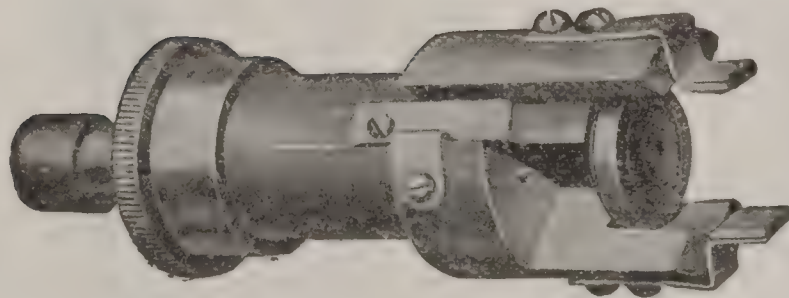
This switch closes when the circuit breaker opens, and may be used to announce the automatic opening of the circuit breaker, through the means of an indicating lamp or an alarm bell. It is often necessary to arrange one circuit breaker so that, in opening, it will trip others. This may be accomplished by using a circuit closing auxiliary switch in connection with a low voltage or shunt trip attachment on the circuit breakers to be tripped.

The construction of this type of switch is such that it may be opened by hand after the circuit breaker opens, but it is automatically reset when the circuit breaker is closed.

Circuit-Opening Auxiliary Switch.



This switch opens an auxiliary circuit when the circuit breaker opens, and is intended to be used in connection with a shunt trip attachment to insure the immediate disconnection of the shunt coil from the circuit. It may also be employed to serve other purposes, such as indicating by a lamp the open position of the circuit breaker; tripping another circuit breaker having a low voltage attachment; and permitting another circuit breaker to remain closed only when the circuit breaker equipped with the auxiliary switch is open.



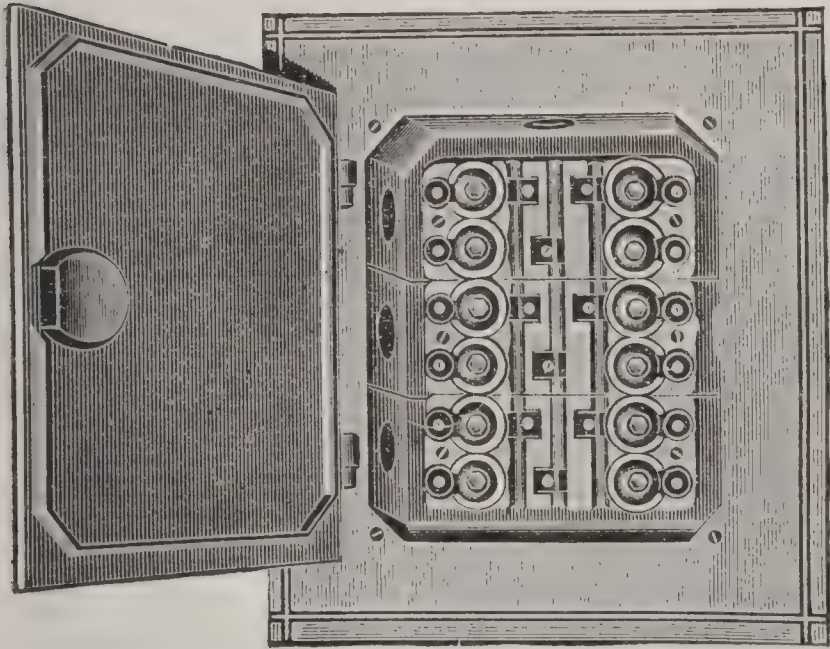
Combined Circuit-Closing and Circuit-Opening Auxiliary Switch.

As the name implies, this switch performs all the duties of both the circuit-closing and the circuit-opening switches.

Auxiliary Switches.

CIRCUIT CLOSING		CIRCUIT OPENING		COMBINED CIRCUIT CLOSING AND CIRCUIT OPENING		Ampere Capacity of Circuit Breaker	For Mounting on
Cat. No.	List Price	Cat. No.	List Price	Cat. No.	List Price		
36270	\$6 00	36278	\$6 00	36286	\$11 00	15 to 200	Base (1¼ inch thick)
36271	6 00	36279	6 00	36287	11 00	15 to 200	1½ inch Panel
36272	6 00	36280	6 00	36288	11 00	15 to 200	2 inch Panel
36273	6 00	36281	6 00	36289	11 00	300 and 500	Base (1¼ inch thick)
36274	6 00	36282	6 00	36290	11 00	300 and 500	1½ inch Panel
36275	6 00	36283	6 00	36291	11 00	300 and 500	2 inch Panel
36276	6 00	36284	6 00	36292	11 00	800 and 1200	1½ in. Panel or Base
36277	6 00	36285	6 00	36293	11 00	800 and 1200	2 inch Panel

WHITE ENAMELED IRON CABINETS.



The Le Manquis Cabinets

meet all underwriters and city requirements.

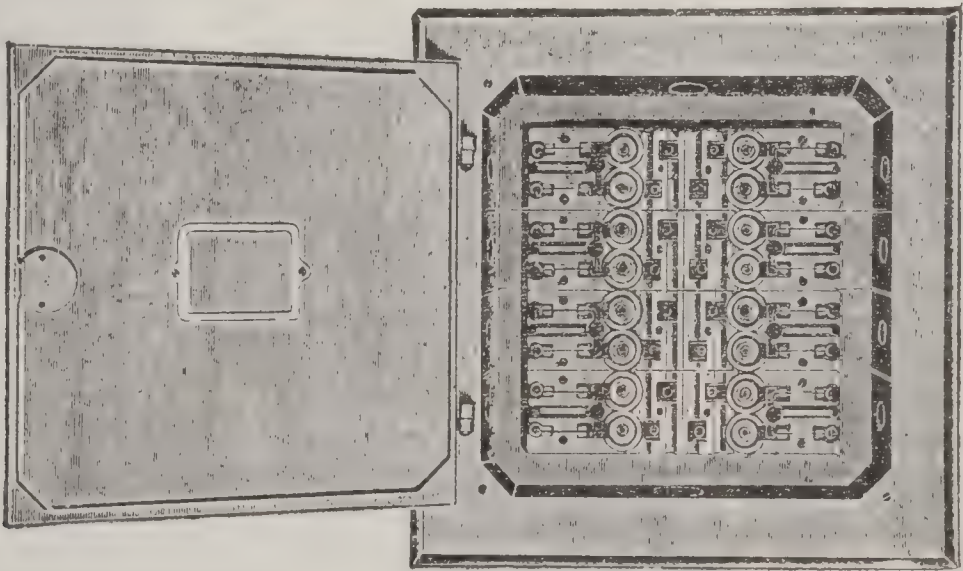
They are made in sections of $\frac{1}{8}$ and $\frac{3}{16}$ iron, so that by adding a middle section, any size cabinet can be made at short notice.

They have no channels, the conduits being bolted to the sides opposite each circuit. This arrangement leaves the wires accessible for inspection or renewals without removing the door and frame, and also makes a thorough bond between all conduits.

Style A, Iron Cabinet.

With plug cutouts, and either 2 or 3 wire mains. Carried in stock from 4 to 10 circuits. Can be made any size desired at short notice.

List No.										Price.
16180	2	Cir.,	3 in. deep,	4 $\frac{1}{4}$ in. high,	8 $\frac{1}{2}$ in. wide, (inside)	....				\$4 00
16181	4	"	"	7 $\frac{1}{4}$ "	"	"	"	"	"	5 00
16182	6	"	"	10 $\frac{1}{4}$ "	"	"	"	"	"	6 00
16183	8	"	"	13 $\frac{1}{4}$ "	"	"	"	"	"	7 00
16184	10	"	"	16 $\frac{1}{4}$ "	"	"	"	"	"	8 00
16185	12	"	"	19 $\frac{1}{4}$ "	"	"	"	"	"	10 00

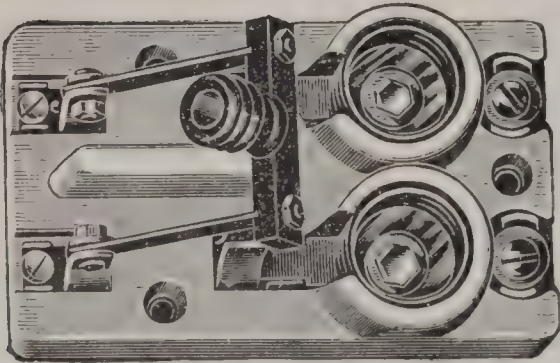


Style C, Iron Cabinet.

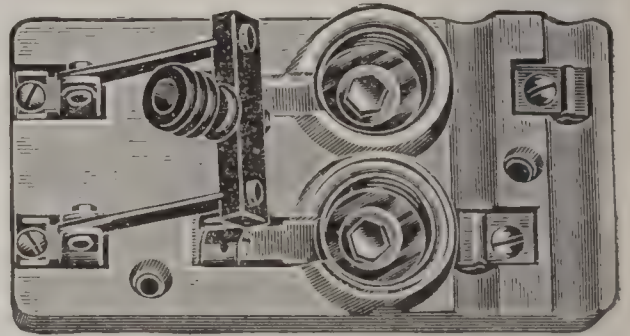
With Mesco Panel Switches.

List No.										Price.
16186	2	Cir.,	3 $\frac{1}{2}$ in. deep,	5 $\frac{1}{2}$ in. high,	15 in. wide (inside)	.....				\$6 00
16187	4	"	"	9	"	"	"	"	"	8 00
16188	6	"	"	12	"	"	"	"	"	10 00
16189	8	"	"	15	"	"	"	"	"	12 00
16190	10	"	"	18	"	"	"	"	"	14 00
16191	12	"	"	21	"	"	"	"	"	16 00
16192	14	"	"	24	"	"	"	"	"	18 00

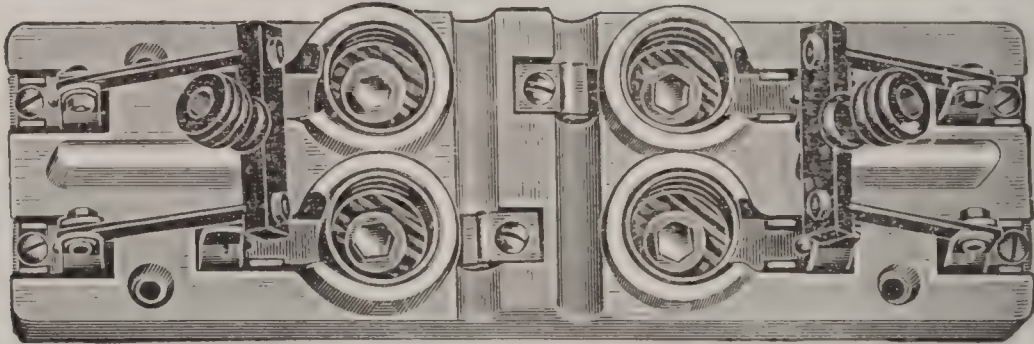
PANEL CUT-OUTS.



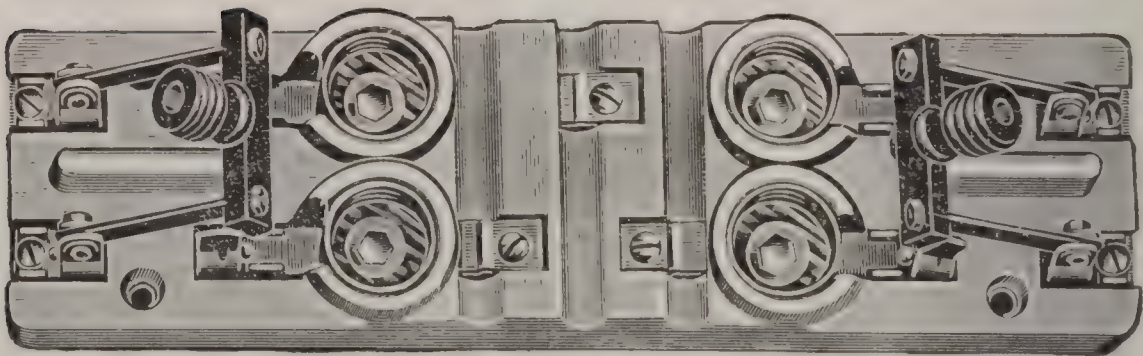
List No. 7845.
Two Wire Main.
15 Amp. 125 Volts.



List No. 7842.
Two Wire Single Branch.
15 Amp. 125 Volts.



List No. 7843.
Two Wire Double Branch.
15 Amp. 125 Volts.



List No. 7844.
Three to Two Wire Double Branch.
15 Amp. 125 Volts.

List No.		Std. Pkg.	Price.
7845	Two Wire Main.....	100	\$0 90
7846	Two Wire Single Branch... ..	100	1 00
7843	Two Wire Double Branch.....	50	2 00
7844	Three to Two Wire Double Branch.....	50	2 10

Fuse Plugs are not included in above prices. See "Fuse Plugs."

Panel Cut-outs are convenient for many combinations and are preferred in most cases to Panel Boards as they require less room and when installed in our iron cabinets are up to the most rigid requirements of the underwriters

We always have a large stock of both cut-outs and cabinets, which enables us to ship almost any combination ready for installation the same day order is received.

STANDARD SERVICE SWITCH.



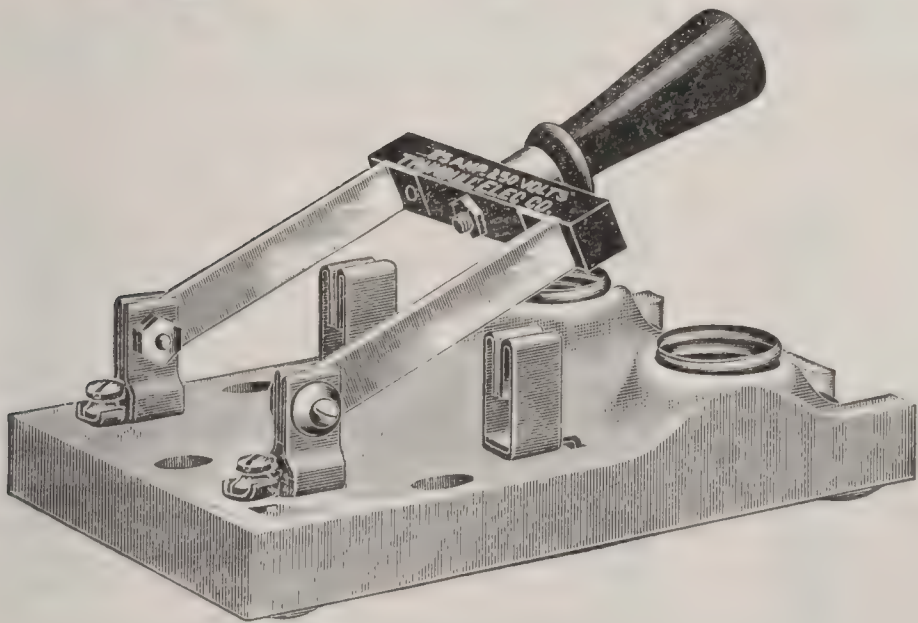
This switch and box meets all the requirements of the Board of Underwriters, and is more compact than any other service box on the market.

Furnished complete with Entrance Switch and Cut-Out. Fuses not included.

List No.		Price
16130	D. P. 25 Amp., 110 Volt.....	\$3 00
16131	D. P. 25 " 220 Volt.....	3 50
16132	T. P. 25 " 220 Volt.....	4 00

When ordering state if for 1/2 inch conduit or open work.

Combination Switch and Cut-Out.

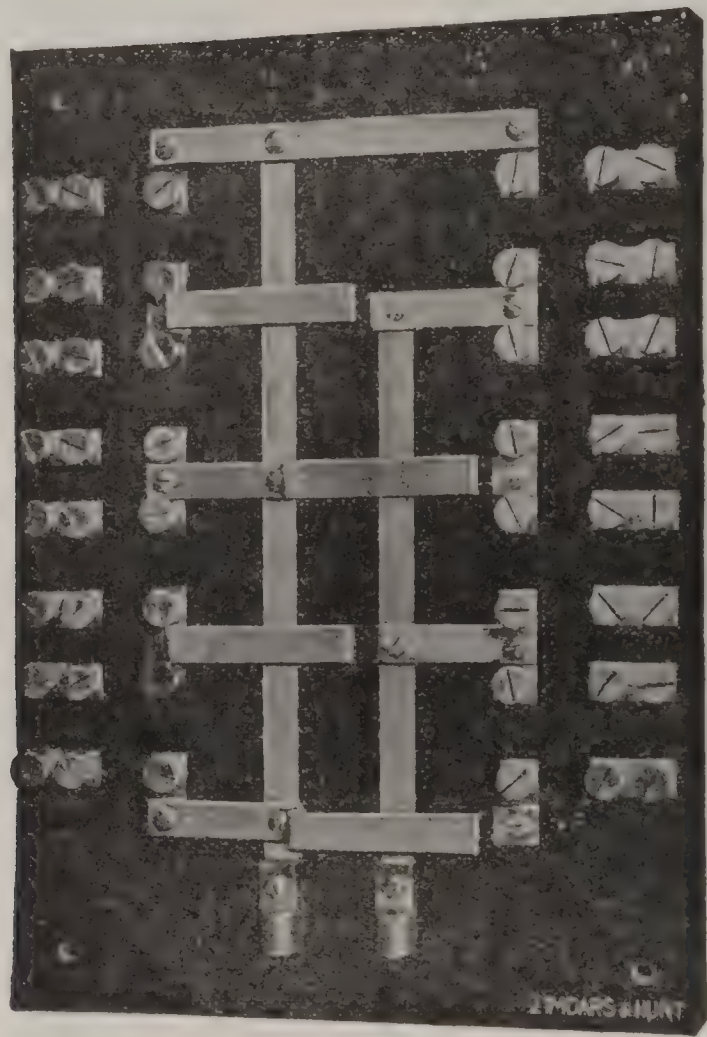


Used extensively for Entrance Switches, Motor Switches and many other places where a combined switch and cut-out is desirable.

No. 7123. Double Pole.

List No.		Std. Pkg.	Price
7123	D. P. 25 Amp., 125 Volt.....	100	\$0 90
7128	D. P. 25 " 250 Volt.....	100	1 00
7124	T. P. 25 " 250 Volt.....	50	1 40

TWO AND THREE WIRE PANEL BOARDS.
Without Switches.



Type "A" Panel Board.
For 110 Volts (2 or 3 Wire Mains).

Individual Capacity of Branches, 10 Amperes. Mains calculated on a basis of 6 Amperes per circuit.

Two Wire Mains.

List No.	No. of Circuits.	Price.
7145	2	\$2 70
7146	4	4 50
7147	6	6 30
7148	8	8 10
7149	10	9 90
7150	12	11 70
7151	14	13 50
7152	16	15 30
7153	18	17 10
7154	20	18 90
7155	22	20 70
7156	24	22 50
7157	26	24 30
7158	28	26 10
7159	30	27 90

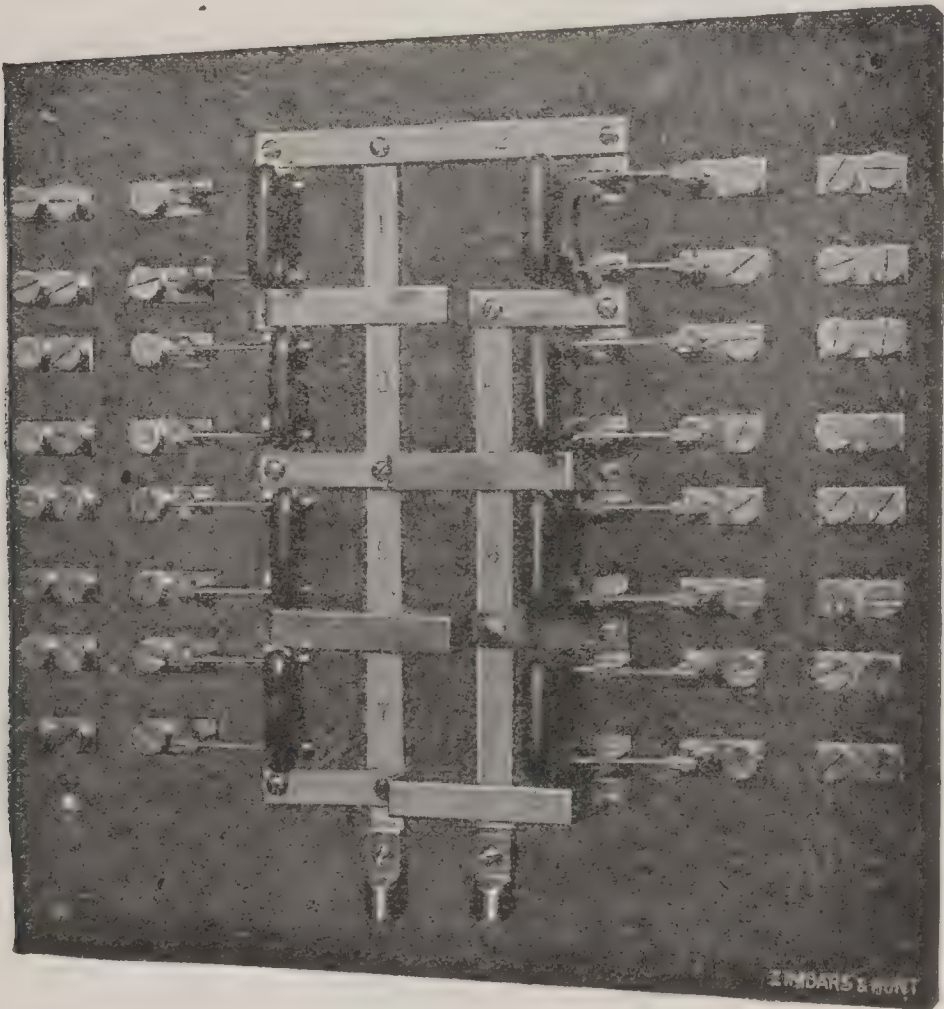
Three Wire Mains.

List No.	No. of Circuits.	Price.
7160	2	\$2 90
7161	4	4 80
7162	6	6 70
7163	8	8 60
7164	10	10 50
7165	12	12 40
7166	14	14 30
7167	16	16 20
7168	18	18 10
7169	20	20 00
7170	22	21 90
7171	24	23 80
7172	26	25 70
7173	28	27 60
7174	30	29 50

Above Prices are for 110 volt apparatus. Type A and B Panel Boards can be supplied for 220 volt systems at an advance of 25 per cent. Finish is polished metal parts mounted on black enamel slate.

For prices on modifications in design or detail see page No. 552.

TWO AND THREE WIRE PANEL BOARDS.
With Switches.



Type "B" Panel Board.

For 110 Volts (2 or 3-Wire Mains).

Individual Capacity of Branches, 10 Amperes. Mains calculated on a basis of 6 Amperes per circuit.

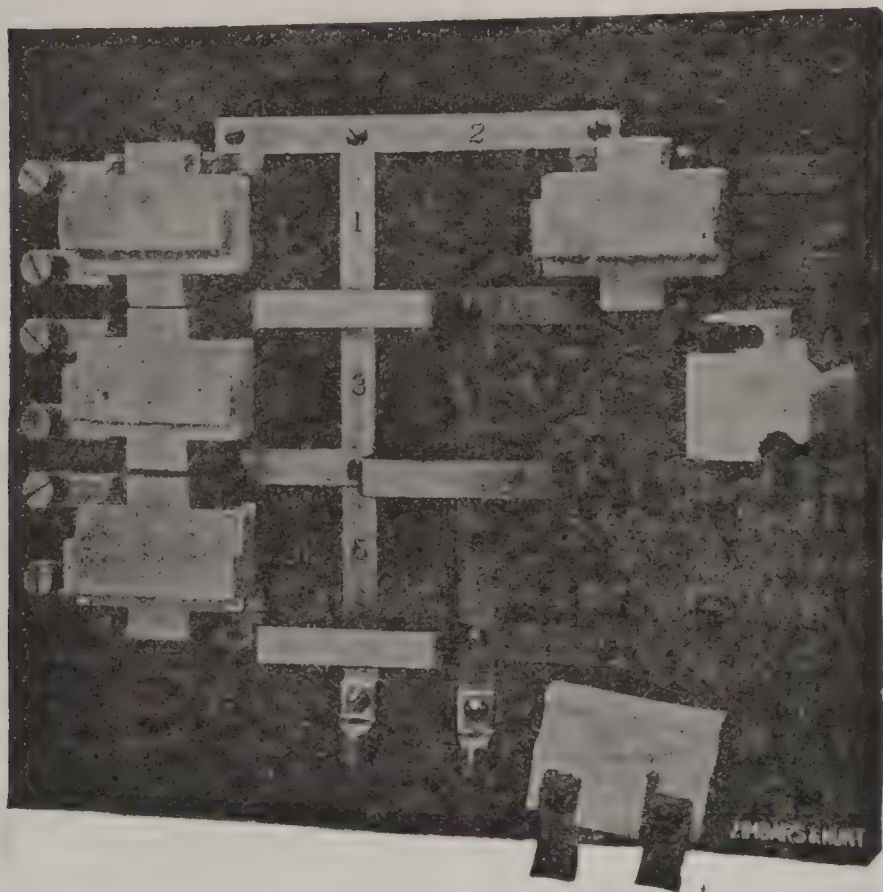
Two Wire Mains			Three Wire Mains.		
List No	No. of Circuits.	Price.	List No.	No. of Circuits.	Price.
7180	2	\$3 70	7195	2	\$3 90
7181	4	6 50	7196	4	6 80
7182	6	9 30	7197	6	9 70
7183	8	12 10	7198	8	12 60
7184	10	14 90	7199	10	15 50
7185	12	17 70	7200	12	18 40
7186	14	20 50	7201	14	21 30
7187	16	23 30	7202	16	24 20
7188	18	26 10	7203	18	27 00
7189	20	28 90	7204	20	30 00
7190	22	31 70	7205	22	32 90
7191	24	34 50	7206	24	35 80
7192	26	37 30	7207	26	38 70
7193	28	40 10	7208	28	41 60
7194	30	42 00	7209	30	44 50

Above prices are for 110 volt apparatus.
Type A and B Panel Boards supplied for 220 volt systems at an advance of 25 per cent.
Finish on above is Polished Metal Parts on Black Enamel Slate.

For prices on modifications in design or detail
see page No. 552.

TWO AND THREE WIRE PANEL BOARDS.

With Removable Fuse Holders.



Type "C" Panel Board.

For 110 Volts (2 or 3-Wire Mains).

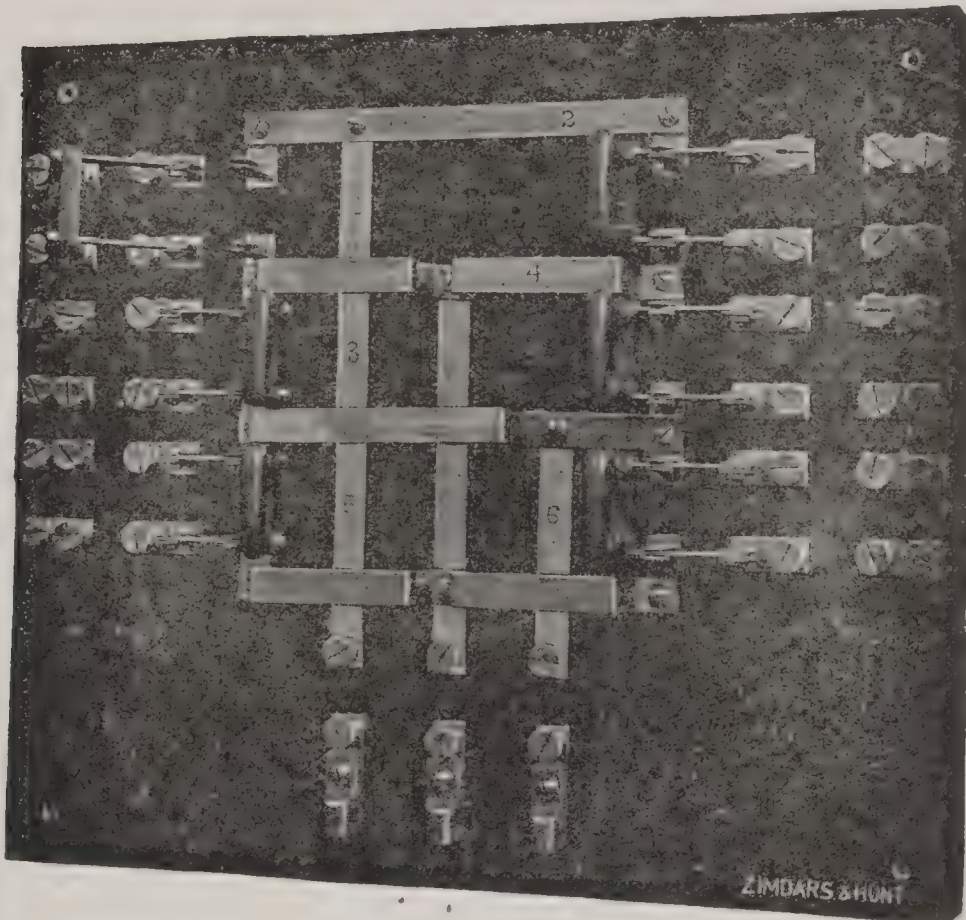
Individual Capacity of Branches, 10 Amperes. Mains calculated on a basis of 6 Amperes per circuit

Two Wire Mains.			Three Wire Mains.		
List No.	No. of Circuits.	Price.	List No.	No. of Circuits.	Price.
7215	2	\$4 70	7230	2	\$4 90
7216	4	8 50	7231	4	8 80
7217	6	12 30	7232	6	12 70
7218	8	16 10	7233	8	16 60
7219	10	19 90	7234	10	20 50
7220	12	23 70	7235	12	24 40
7221	14	27 50	7236	14	28 30
7222	16	31 30	7237	16	32 20
7223	18	35 10	7238	18	36 10
7224	20	38 90	7239	20	40 00
7225	22	42 70	7240	22	43 90
7226	24	46 50	7241	24	47 80
7227	26	50 30	7242	26	51 70
7228	28	54 10	7243	28	55 60
7229	30	57 90	7244	30	59 50

Above prices are for 110 volt apparatus only.
The fuse holders are of Porcelain Metal parts polished on Black Enamel Slate.

For prices on modifications in design or detail
see page No. 552.

TWO AND THREE WIRE PANEL BOARD DETAIL AND MODIFICATIONS.



Style "A," 3-wire Panel Board..

Showing Fuse Connections in Mains.

The following prices are to be added to those given on previous pages when any of the following extras are wanted.

Knife Switches on Mains.

List No.	Amp.		Price.	List No.	Amp.		Price.
7250	25	2-wire.....	\$4 90	7256	25	3-wire.....	\$7 90
7251	50	"	7 60	7257	50	"	11 40
7252	75	"	9 60	7258	75	"	14 40
7253	100	"	11 60	7259	100	"	17 40
7254	150	"	14 00	7260	150	"	21 20
7255	200	"	13 60	7261	200	"	24 90

Fuse Connections in Mains.

List No.	Price.	List No.	Price.
7265 2-wire Mains.....	\$1 50	7266 3-wire Mains.....	\$2 00

Lugs Both Ends of Mains.

List No.	Price.	List No.	Price.
7267 2-wire Mains.....	\$0 70	7268 3-wire Mains.....	\$1 00

Lugs Both Ends of Mains with Fuse Connections One End.

List No.	Price.	List No.	Price.
7269 2-wire Mains.....	\$2 00	7270 3-wire Mains.....	\$2 50

Mains heavier than Standard will be charged extra.

For arranging Panel to take enclosed fuse requiring clips add 24 cents per circuit.

Other styles without clips no extra charge.

CABINETS FOR PANEL BOARDS.

Description of Cabinets for use with Type A, B and C Panel Boards.

Cabinets for Panel Boards are ordinarily divided into two general classes, those in which the box is let into the wall, leaving the door and trim only showing on the surface, and those in which the box is set out on the wall. The former is usually termed a **flush** or **concealed** cabinet, and the latter a **surface** or **outside** cabinet. A flush cabinet consequently consists of a rough box with door and trim, and a surface cabinet of finished box with door and trim. The table gives the prices of the parts of a cabinet. When mounting a panel board it is the common practice to surround it with a slate frame of 1/2 inch stuff. Between this slate frame and the sides of the cabinet box a gutter or connection compartment is allowed, 3 inches being the usual allowance for this gutter, and cabinets with this size gutter allowance will be furnished unless otherwise specified. Cabinets can, however, be furnished without any gutter at all, or with any size gutter up to 3 1/2 inches, at the prices given in Price List. But cabinets with gutters larger than 3 1/2 inches and those in which the gutter is not the same size all around will be charged at an advanced price. **Slate Frames, Linings, etc.,** are **not** included in prices of cabinets, but are separately listed. Doors of cabinets are made about a 1/4 inch larger all around than the panel board base. The trim serves as a door frame and cover for the gutter or connection compartment. For flush cabinets the edges of trims extend beyond the box and conceal the joints between the rough box and wall. **Trims of surface boxes end flush with the sides of box** Finished white wood boxes, doors and trims are furnished ready for staining or painting, but are not supplied stained or painted unless specially ordered so, and then at an advanced price. Oak and ash boxes, doors and trims are finished in one coat filler, one coat shellac, and one coat varnish oil rubbed to an egg glass finish. Brass cupboard locks are ordinarily supplied on pan cabinets. An extra charge will be made for **Yale Locks** and special hardware. Round or oval head brass or bronze screws are furnished with cabinets for fastening trims to boxes. Cabinets in cherry, black walnut, mahogany and fancy woods can be supplied at special prices.

Boxes, Trims, Doors, Etc., Constituting Panel Board Cabinets.

No. of Circuits Type A.	No. of Circuits Type B and C.	ROUGH BOX.			FINISHED BOX.		DOOR AND TRIM.		Extra Charge for Plate Glass in Door.	Extra Charge for Sheet-Iron Gutter Lining
		Steel.	White Wood.	Oak or Ash.	White Wood.	Oak or Ash.	White Wood.	Oak or Ash.		
		Price.	Price.	Price.	Price.	Price.	Price.	Price.	Price.	Price.
.....	.....	\$2 60	\$0 80	\$1 10	\$1 20	\$1 65	\$6 60	\$7 00	\$2 00	\$1 04
2	.....	2 92	94	1 28	1 42	1 92	6 44	7 48	2 10	1 16
4	.....	3 24	1 08	1 43	1 64	2 19	6 88	7 96	2 22	1 28
6	2	3 56	1 22	1 64	1 86	2 46	7 32	8 44	2 36	1 40
8	4	3 88	1 36	1 82	2 08	2 73	7 76	8 92	2 54	1 52
10	6	4 20	1 50	2 00	2 30	3 00	8 20	9 40	2 76	1 64
12	8	4 52	1 64	2 18	2 52	3 27	8 64	9 88	3 04	1 76
14	10	4 84	1 78	2 36	2 74	3 54	9 08	10 36	3 38	1 88
16	12	5 16	1 92	2 54	2 96	3 81	9 52	10 84	3 80	2 00
18	14	5 48	2 06	2 72	3 18	4 08	9 96	11 32	4 30	2 12
20	16	5 80	2 20	2 90	3 40	4 35	10 40	11 80	4 90	2 24
22	18	6 12	2 34	3 08	3 62	4 62	10 84	12 28	5 60	2 36
24	20	6 44	2 48	3 26	3 84	4 89	11 24	12 76	6 42	2 48
26	22	6 76	2 62	3 44	4 06	5 16	11 68	13 24	7 36	2 60
28	24	7 08	2 76	3 62	4 28	5 43	12 12	13 72	8 44	2 72
30	26	7 40	2 90	3 80	4 50	5 70	12 56	14 20	9 66	2 84
.....	28	7 72	3 04	3 98	4 72	5 97	13 00	14 68	11 04	2 96
.....	30	8 04	3 18	4 16	4 94	6 24	13 44	15 16	12 58	3 08

SLATE LININGS FOR PANEL BOARD CABINETS.

LISTED ON PAGE 553.

"Slate Frame" refers to the four pieces of slate used around the sides of a panel board, and they are furnished either with or without corner irons according to whether panel board is or is not mounted in a cabinet with gutters.

"Door Lining" refers to the piece of slate used on the back of door to fireproof same.

"Gutter Linings" refer to the twelve (12) pieces of slate used to line the connection channels or gutters. The linings for back of trim are included in the twelve pieces.

Prices of plain and black enamel slate are given. For marbled slate add 10 per cent. to price of black enamel.

Prices on Slate Linings for Type "A" Panel Boards.

Number of Circuits.	SLATE FRAME.		DOOR LINING.		GUTTER LINING.		Number of Circuits.	SLATE FRAME.		DOOR LINING.		GUTTER LINING.	
	Plain.	Black Enam'l	Plain.	Black Enam'l	Plain.	Black Enam'l		Plain.	Black Enam'l	Plain.	Black Enam'l	Plain.	Black Enam'l
2	\$0 64	\$0 84	\$0 32	\$0 44	\$2 60	\$3 64	18	\$1 12	\$1 48	\$1 28	\$1 72	\$4 20	\$5 72
4	70	92	44	60	2 80	3 90	20	1 18	1 56	1 40	1 88	4 40	5 98
6	76	1 00	56	76	3 00	4 16	22	1 24	1 64	1 52	2 04	4 60	6 24
8	82	1 08	68	92	3 20	4 42	24	1 30	1 72	1 64	2 20	4 80	7 50
10	88	1 16	80	1 08	3 40	4 68	26	1 36	1 80	1 76	2 36	5 00	7 76
12	94	1 24	92	1 24	3 60	4 94	28	1 42	1 88	1 88	2 52	5 20	8 02
14	1 00	1 32	1 04	1 40	3 80	5 20	30	1 48	1 96	2 00	2 68	5 40	8 28
16	1 06	1 40	1 16	1 56	4 00	5 46							

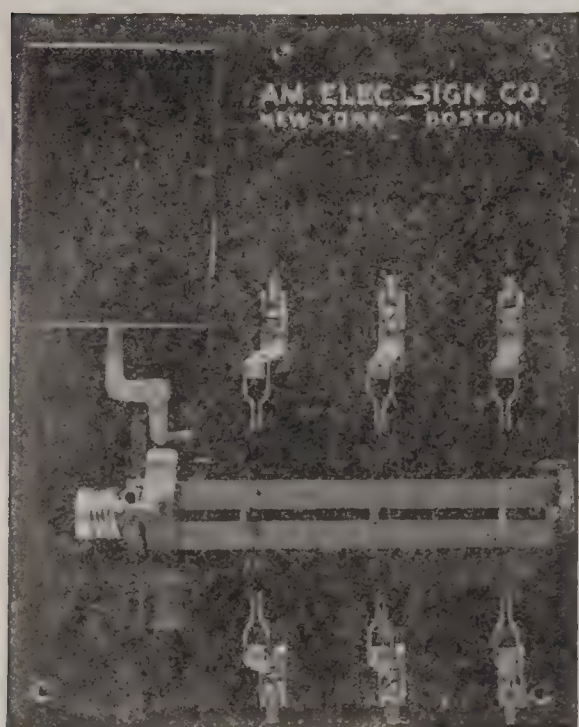
Prices on Slate Linings for Type "B" Panel Boards.

Number of Circuits.	SLATE FRAME.		DOOR LINING.		GUTTER LINING.		Number of Circuits.	SLATE FRAME.		DOOR LINING.		GUTTER LINING.	
	Plain.	Black Enam'l	Plain.	Black Enam'l	Plain.	Black Enam'l		Plain.	Black Enam'l	Plain.	Black Enam'l	Plain.	Black Enam'l
2	\$0 80	\$1 08	\$0 40	\$0 60	\$3 32	\$4 36	18	\$1 44	\$1 88	\$1 68	\$2 20	\$5 24	\$6 92
4	88	1 18	56	80	3 56	4 68	20	1 52	1 98	1 84	2 40	5 48	7 24
6	96	1 28	72	1 00	3 80	5 00	22	1 60	2 08	2 00	2 60	5 72	7 56
8	1 04	1 38	88	1 20	4 04	5 32	24	1 68	2 18	2 16	2 80	5 96	7 88
10	1 12	1 48	1 04	1 40	4 28	5 64	26	1 76	2 28	2 32	3 00	6 20	8 20
12	1 20	1 53	1 20	1 60	4 52	5 96	28	1 84	2 38	2 48	3 20	6 48	8 54
14	1 28	1 68	1 36	1 80	4 76	6 28	30	1 92	2 48	2 64	3 40	7 72	8 86
16	1 36	1 78	1 52	2 00	5 00	6 60							

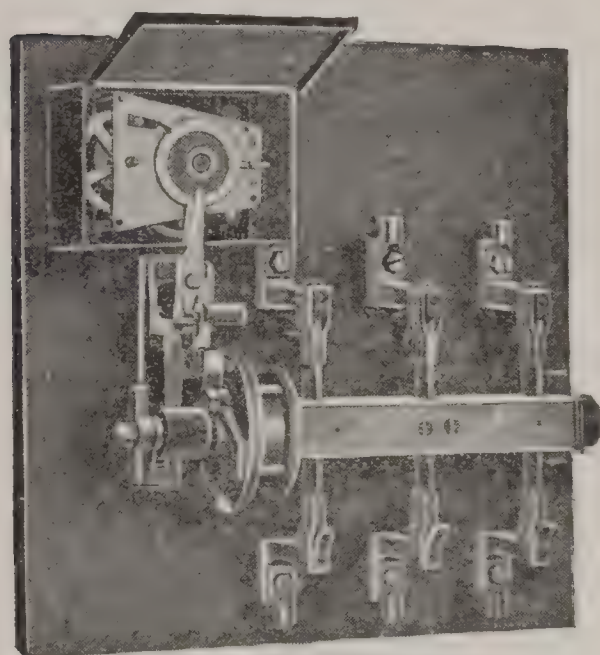
Prices on Slate Linings for Type "C" Panel Boards.

Number of Circuits.	SLATE FRAME.		DOOR LINING.		GUTTER LINING.		Number of Circuits.	SLATE FRAME.		DOOR LINING.		GUTTER LINING.	
	Plain.	Black Enam'l	Plain.	Black Enam'l	Plain.	Black Enam'l		Plain.	Black Enam'l	Plain.	Black Enam'l	Plain.	Black Enam'l
2	\$0 96	\$1 20	\$0 36	\$0 52	\$3 80	\$4 84	18	\$1 76	\$2 32	\$1 48	\$1 96	\$6 20	\$8 20
4	1 06	1 34	50	70	4 10	5 26	20	1 86	2 46	1 62	2 14	6 50	8 62
6	1 16	1 48	64	88	4 40	5 68	22	1 96	2 60	1 76	2 32	6 80	9 04
8	1 26	1 62	78	1 06	4 70	6 10	24	2 06	2 74	1 90	2 50	7 10	9 44
10	1 36	1 76	92	1 24	5 00	6 52	26	2 16	2 88	2 04	2 68	7 40	9 86
12	1 46	1 90	1 06	1 42	5 30	6 94	28	2 26	3 02	2 18	2 86	7 70	10 28
14	1 56	2 04	1 20	1 60	5 60	7 36	30	2 36	3 16	2 32	3 04	8 00	10 70
16	1 66	2 18	1 34	1 78	5 90	7 78							

AUTOMATIC TIME SWITCHES.



Type B. 3 Pole.



Type C. 3 Pole.

For Automatic Control of Electric Circuits of any capacity.

With this device applied to show window lighting or electric signs the business man does not have to depend upon the Janitor or other employee, but can rest assured that at the proper time the current will be automatically turned on or off, as the case may require.

The clock is a reliable and accurate 8 day movement.

Type B switch is designed to throw current "off" only.

Type C switch throws current "on" and "off" automatically and requires no attention outside of winding of clock and switch spring once a week.

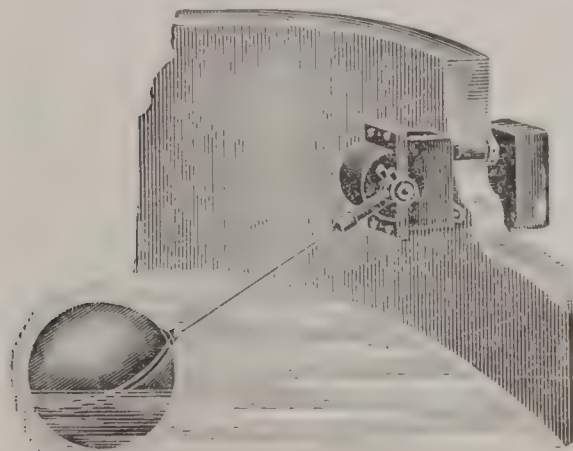
Type B Switch.

List No.		Price.
7141	35 Amp. Double Pole.....	\$23 00
7142	35 " Triple Pole.....	24 00

Type C Switch.

List No.		35 Amp.	50 Amp.	75 Amp.	100 Amp.
7143	Double Pole... ..	\$37 50	\$41 25	\$45 00	\$48 00
7144	Triple "	45 00	48 75	52 50	56 25

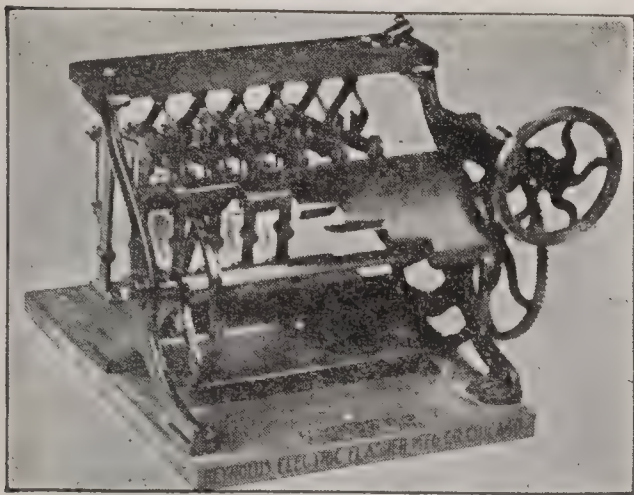
Metal boxes for enclosing switches can be furnished. Prices on application.



Weatherproof Tank Switch.

The only Automatic Tank Switch for exposed tanks now on the market that is absolutely rust-proof and water-proof. It is direct acting and can be used on all size motors up to and including 1 H. P., or, if an automatic starter is used, this switch can be used with any size motor. The object of this switch is to do away with the chain and pulleys used on other type of switches, and also to save the boxing which would be necessary to protect the parts from the weather.

List No.		Price
11940	Automatic Tank Switch.....each	\$30 00



SIGN FLASHERS.

Improved Reynolds.

This Flasher is built for controlling electric signs and electrical window displays.

It has single-pole switches with capacity of six amperes each.

It will flash one letter at a time, then the whole sign, or, if sign is double, the two corresponding letters are controlled by one switch.

It will give an electric sign the talking effect.

It will make a sign ten times as attractive and cut the expense of current 50 per cent.

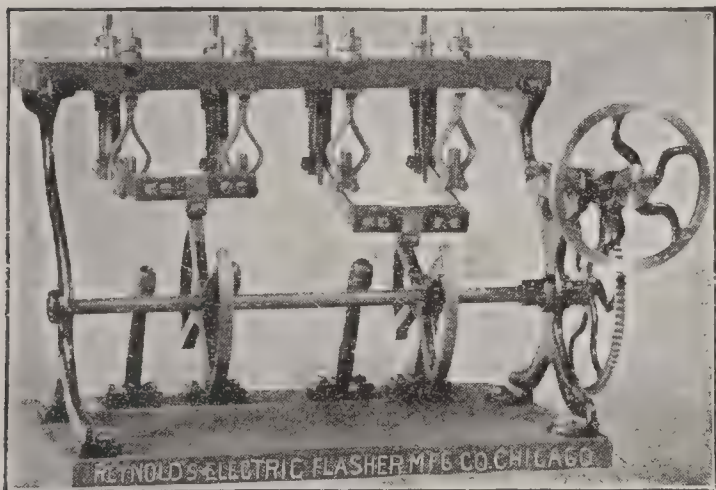
It is simple and free from troublesome parts.

List No.	For	2 Circuits with	2 Switches..	Price.
15900	For	2 Circuits with	2 Switches..	\$33 00
15901	"	3 " " "	3 " "	36 00
15902	"	4 " " "	4 " "	40 00
15903	"	5 " " "	5 " "	45 00
15904	"	6 " " "	6 " "	50 00
15905	"	7 " " "	7 " "	55 00
15906	"	8 " " "	8 " "	60 00
15907	"	9 " " "	9 " "	65 00
15908	"	10 " " "	10 " "	70 00
15909	"	11 " " "	11 " "	75 00

List No.	"	12	"	"	12	"	Price.
15910	"	12	"	"	12	"	80 00
15911	"	13	"	"	13	"	85 00
15912	"	14	"	"	14	"	90 00
15913	"	15	"	"	15	"	95 00
15914	"	16	"	"	16	"	100 00
15915	"	17	"	"	17	"	105 00
15916	"	18	"	"	18	"	110 00
15917	"	19	"	"	19	"	115 00
15918	"	20	"	"	20	"	120 00

For Flashing Electric Signs in single letters and whole words it requires one switch for each letter, or, if Sign reads from both sides, each two same letters are flashed with one switch. Capacity is six amperes per switch at 110 volts.

Always specify if current is 2 or 3 wire system.



Reco Sign Flasher with Double Pole Switches.

THE RECO Sign Flasher is built for heavy work and controls whole words, whole signs and double signs.

It controls circuits of 20 to 100 amperes per switch.

It is made with one to ten or more double-pole switches and will flash from 50 to 500 four C. P. lamps per switch.

It is perfect electrically and mechanically, and is the simplest device on the market.

The switches are self-lubricating and operate by gravity action.

It has no troublesome parts of any kind.

It will save 50 per cent. of the electric current bill.

List No.	Mfs. No.	Number of Switches.	Maximum Capacity of Each Switch.	Price of Flasher.
15925	501	1	20 Amp.	\$40 00
15926	502	2	"	56 00
15927	503	3	"	70 00
15928	504	4	"	84 00
15929	505	5	"	100 00
15930	506	6	"	115 00
15931	507	7	"	130 00
15932	508	8	"	145 00
15933	509	9	"	160 00
15934	510	10	"	175 00
15935	601	1	35 Amp.	50 00
15936	602	2	"	70 00
15937	603	3	"	90 00
15938	604	4	"	110 00
15939	605	5	"	130 00
15940	606	6	"	150 00
15941	607	7	"	170 00
15942	608	8	"	190 00
15943	609	9	"	210 00
15944	610	10	"	230 00

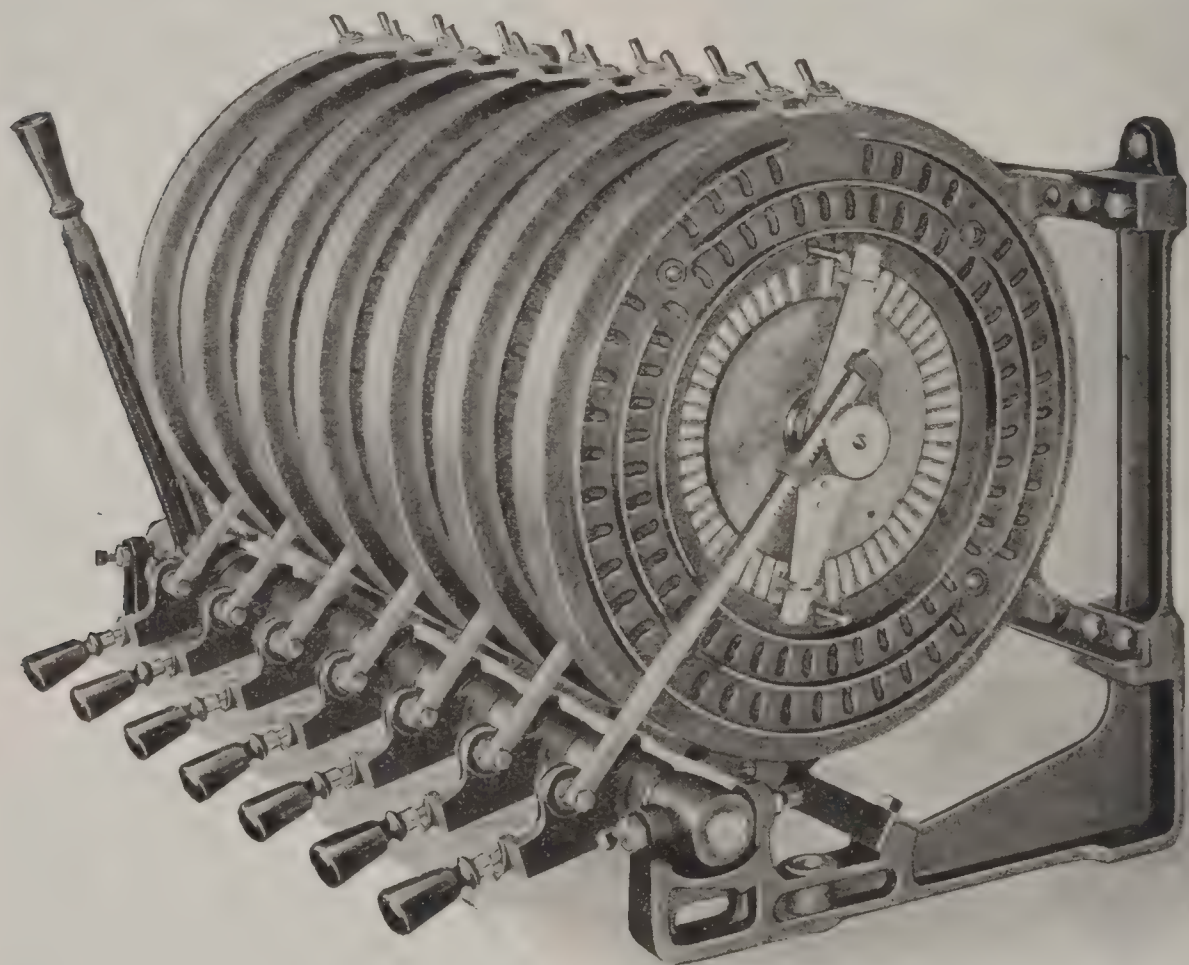
List No.	Mfs. No.	Number of Switches.	Maximum Capacity of Each Switch.	Price of Flasher.
15945	701	1	50 Amp.	\$60 00
15946	702	2	"	80 00
15947	703	3	"	100 00
15948	704	4	"	120 00
15949	705	5	"	140 00
15950	706	6	"	160 00
15951	707	7	"	180 00
15952	708	8	"	200 00
15953	709	9	"	220 00
15954	710	10	"	240 00
15955	801	1	75 Amp.	70 00
15956	802	2	"	90 00
15957	803	3	"	110 00
15958	804	4	"	130 00
15959	805	5	"	155 00
15960	806	6	"	180 00
15961	807	7	"	205 00
15962	808	8	"	230 00
15963	809	9	"	255 00
15964	810	10	"	280 00

The rated capacity of RECO FLASHER SWITCHES is based on voltage being 110 volts; if voltage is 220 the circuits should not contain more than one-half the rated capacity of switches.

Always specify if service is two or three wire system.

1-10 or 1-16 H. P. motors will operate the 20 to 50 amp. flashers. For motors for larger flashers get special quotations.

“SIMPLICITY” THEATRE DIMMER.



The arrangement of this dimmer is more compact than any other type of apparatus made. The construction of the interlocking parts and the mechanical arrangement is such as to insure the movement of the individual dimmer levers with the minimum of friction. These dimmers consist of circular plates, mounted in a frame made up of cast iron end frames with angle and flat iron connecting pieces. These connecting pieces are disposed as follows: A flat iron bar at the top and back of the end frame, an angle iron at the lower back of the frame, and an angle iron bar placed midway on the horizontal arm of the frame. The plates are fastened to these frames by means of screws passing through the lugs and threaded into the wrought iron connecting bars, the lower one of which is so disposed at an angle as to permit the easy insertion of the screw. The operating levers are mounted on a shaft which is carried on self-centering bearings on an extension of the horizontal arm of the end frame, and the levers are so located in both the interlocking and non-interlocking types. It is the best dimmer manufactured. Full descriptive pamphlet sent on application.

Interlocking Dimmers.

2-Wire for 110 V. Circuits.

3-Wire for 110-220 V. Circuits.

List No.	No. 16 c.p. Lts.	Maximum Amperes		No. Plates	Price Each	List No.	Total 16 c.p. Lts.	No. Lts. each side circuit	Max. Amperes each side		No. Plates	Price Each
		1st Step	Last Step						1st Step	Last Step		
20110	20	10.	2.5	1	\$27 00	22110	20	10	5.	1.25	2	\$45 00
20111	30	15.	3.75	1	27 00	22111	30	15	7.5	1.88	2	45 00
20112	40	20.	5.	1	27 00	22112	40	20	10.	2.5	2	45 00
20113	50	25.	6.25	1	27 00	22113	50	25	12.5	3.12	2	45 00
20114	60	30.	7.5	2	45 00	22114	60	30	15.	3.75	2	45 00
20115	80	40.	10.	2	45 00	22115	80	40	20.	5.	2	45 00
20116	100	50.	12.5	2	45 00	22116	100	50	25.	6.25	2	45 00
20117	125	62.5	15.6	3	63 00	22117	124	62	31.	7.8	4	80 00
20118	150	75.	18.8	3	63 00	22118	150	75	37.5	9.4	4	80 00
20119	175	87.5	21.8	4	80 00	22119	174	87	43.5	11.	4	80 00
20120	200	100.	25.	4	80 00	22120	200	100	50.	12.5	4	80 00

For non-interlocking dimmers deduct \$4.50 each from above prices in lots of six banks or more; for lots of less than six banks add \$17.50 to above prices.

NOTE—Above prices cover interlocking dimmers banked in frames complete, including one master lever. When additional master levers are specified add \$17.00 list to price of bank.

NOTE—Double bank construction supplied at above prices in banks of 20 or more plates. When specified in banks of less than 20 an extra charge of \$27.00 list will be made.

SMALL THEATRE DIMMERS.



FIRST.—The Ward Leonard Dimmers are the smallest in size and most convenient in shape of any on the market. As a consequence it is possible to secure in a given available space a larger capacity dimmer.

SECOND —These Dimmers are very much lighter for the same capacity than any other dimmers made, which is often of great importance when the dimmers are to be mounted upon existing walls or overhead structures.

THIRD.—The levers can be moved with much less effort and with much greater uniformity of motion than in other dimmers, this being due to the universally flexible, self-aligning shoe contact, and the use of non-abrasive metals.

FOURTH.—The insulation never deteriorates, this being due to the fact that the enamel coating cannot possibly absorb moisture or suffer any depreciation by exposure to the elements.

List No.	No. of 16 C. P., 115 Volt 50 Watt Lamps Controlled.	Price Each.	Dimensions in Inches.	No. of Steps.	Total Ohms.	Maximum Amp. 1st Step Lamps at full Candle Power.	Ampere Capacity with entire Rheostat in Circuit.
7373	2.	\$5 00	5½ x 5½	10	300	1.	.2
7374	4.	5 00	5½ x 5½	10	150	2.	.4
7375	8.	5 50	7 x 7	13	75	4.	.8
7376	12.	5 50	7 x 7	13	50	6.	1 2
7377	15.	7 00	9 x 9	16	42	7.5	1.5
7378	20.	7 00	9 x 9	16	35	10.	2.
7379	25.	8 50	11 x 11	20	30	12 5	2 5
7394	30.	8 50	11 x 11	20	25	15.	3.
7395	40.	15 50	14 x 14	25	20	20.	4.
7396	50.	15 50	14 x 14	25	15	25.	5.

Prices on Dimmers of other voltage on application.

WARD LEONARD CONTROLLERS.



For use with Motors up to ¼ horse power.

For continuous duty.

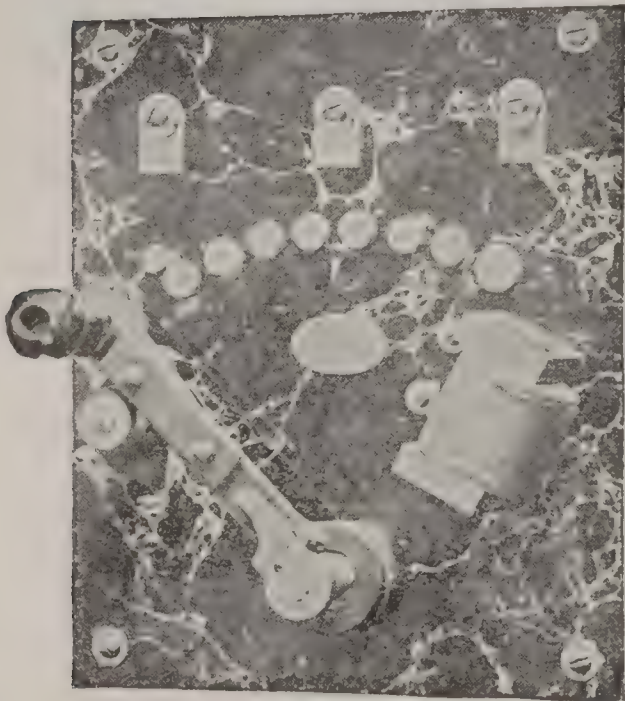
Resistance in form of circular enameled plates.

These Controllers give five speeds and have an open circuit point.

They are especially applicable to motors driving ceiling fans, small machine tools and similar duties.

List No.	Ohms.	Maximum Amperes 1st Step.	Maximum Amperes all Resistance Inches.	Price Each.	No. of Steps.	Size in Inches.
7448	300	.5	.5	2 80	4	5
7449	220	.75	.6	2 80	4	5
7462	160	.8	.7	2 80	4	5
7445	110	1.	1.	2 80	4	5
7446	75	1.5	1.	2 80	4	5
7447	55	2.	1.	2 80	4	5

MOTOR STARTING RHEOSTAT.
With Automatic Release.



Horse Power.	List No.	125 Volts.	List No.	240 Volts.	List No.	500 Volts.
¼	7465...	\$ 5 00	7480...	\$ 5 00	7495...	\$ 5 50
½	7466...	6 60	7481...	6 60	7496...	7 00
1	7509...	6 60	7511...	6 60	7513...	7 00
2	7510...	6 60	7512...	6 60	7514...	7 00
3	7467...	7 30	7482...	7 30	7497...	7 50
4	7468...	12 00	7483...	9 00	7498...	9 00
5	7469...	12 20	7484...	11 00	7499...	11 00
7½	7470...	19 40	7485...	14 00	7500...	14 00
10	7471...	23 20	7486...	16 00	7501...	16 00
15	7472...	30 00	7487...	22 00	7502...	22 00
20	7473...	33 00	7488...	30 00	7503...	27 00
25	7475...	39 00	7489...	33 00	7504...	30 00
30	7476...	44 00	7490...	39 00	7505...	36 00
35	7477...	48 00	7491...	42 00	7506...	42 00
40	7478...	90 00	7492...	48 00	7507...	48 00
50	7479...	110 00	7493...	60 00	7508...	60 00

Absolutely fire-proof, built entirely of marbled slate, metal and asbestos. Impossible to leave the resistance in circuit and burn out the box. Prevents injury to motor when supply of current is cut off, and then suddenly turned on again. Prevents injury to armature and commutator due to an open field circuit. Simple, durable and reliable; only one moving part. Endorsed by the Board of Fire Underwriters.

Directions for Ordering Motor-Starting Rheostats.

State:

1. The maximum amount of current, in amperes, that will ever be required to start the motor.
2. Voltage of the motor.
3. Winding of the motor, stating whether same is plain series-wound, plain shunt-wound or compound-wound.
4. Wherever possible, state the approximate amount of current consumed by the shunt field of the motor.

N. B.—A variation of 50 per cent. in this amount will make no material difference in our starting rheostat.

5. The type desired—whether it shall have the magnetic release, overload attachment, or be complete with double pole knife switch, fuses and overload attachment. The first of these types we designate as a "Motor-starting rheostat with automatic release;" the second as an "Overload motor starter," and the third as a "Universal motor starter."

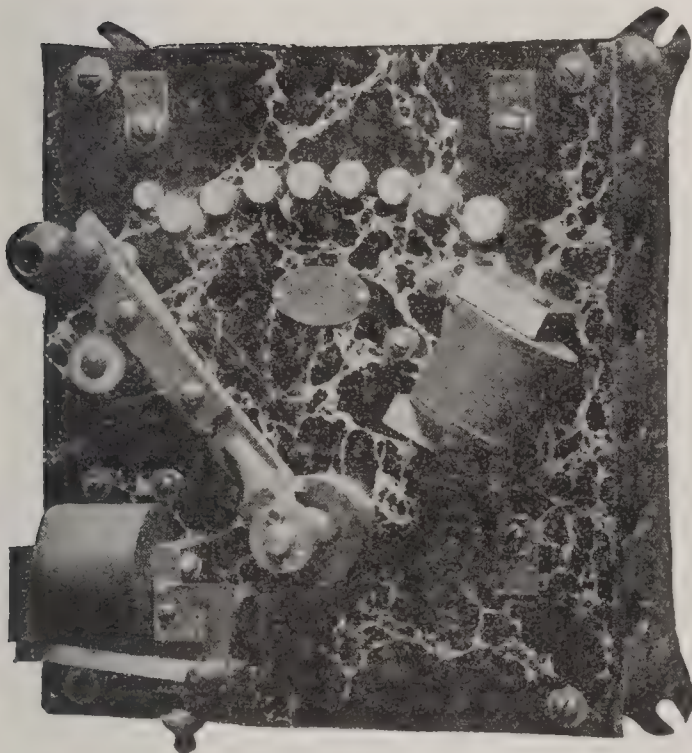
6. The maximum amount of time necessary to bring the motor up to full speed.

NOTE.—For the convenience of our customers we have listed and priced our motor starting rheostats on a horse power and voltage basis. We guarantee these rheostats to start a motor whose starting current never exceeds 150 per cent. of the rated continuous carrying capacity of the motor, when not over 15 seconds is taken to bring the motor up to full speed..

Motors are sometimes so installed as to require two or three times as much current to start them as their continuous rated capacity. It is also sometimes desirable to take a minute or more to start them ; under such conditions as these the standard starters, as rated and priced in our catalogue, will NOT do the work, and larger sizes MUST be used.

OVERLOAD MOTOR-STARTER.

With Overload Release.



Protects the Motor from being overloaded.
A correct indicator of the amount of current being consumed by the Motor.

Horse Power.	List No.	125 Volts.	List No.	240 Volts.	List No.	500 Volts.
½	7515...	\$10 00	7528...	\$10 00	7541...	\$11 00
1	7554...	10 00	7556...	10 00	7558...	11 00
2	7555...	10 00	7557...	10 00	7559...	11 00
3	7516...	11 30	7529...	11 30	7542...	11 50
4	7517...	16 00	7530...	13 00	7543...	13 00
5	7518...	16 20	7531...	15 00	7544...	15 00
7½	7519...	24 40	7532...	19 60	7545...	19 60
10	7520...	30 20	7533...	21 00	7546...	21 00
15	7521...	37 00	7534...	28 00	7547...	28 00
20	7522...	40 00	7535...	37 00	7548...	34 00
25	7523...	46 00	7536...	40 00	7549...	37 00
30	7524...	54 00	7537...	48 00	7550...	44 00
35	7525...	58 00	7538...	52 00	7551...	50 00
40	7526...	110 00	7539...	58 00	7552...	56 00
50	7527...	130 00	7540...	70 00	7553...	68 00

Prices above 50 horse power furnished on application, but we do not recommend the use of an overload movement on sizes larger than 50 horse power. It is better practice to use a circuit breaker for such heavy current.

The overload movement can be set for any flow of current or degree of overload not exceeding 50 per cent. above the rated capacity of the motor, by means of the accurately calibrated scale. This scale can also be used to determine the amount of current being consumed by the motor.

Description of Overload Motor-Starters.

When a motor is started up for the first time under a load, an ammeter should always be inserted in circuit to ascertain the load upon the motor, and readings should also be taken from time to time to ascertain whether this load is undergoing any changes.

One of the great advantages of electric motor driven machinery is the ease with which consumption of power may be measured. If a shaft gets out of line, or a bearing becomes roughened, or a machine begins to work hard, or an improper electrical connection is made, an excessive ampere meter reading will result and a warning given to look for the trouble. To make it more convenient for taking these current readings, we have brought out this extremely simple and low-priced attachment for our starting rheostats, which will enable the approximate current being consumed by the motor to be easily ascertained at any time. This attachment also automatically shuts down the motor when the same becomes overloaded. The removing of one screw from this attachment will prevent the motor from shutting down, and enable the attachment to be used as a current indicator only, if desired. Rheostats having this feature we call "Overload Starting Rheostats." In all other respects they are precisely the same as our standard motor-starting rheostats with automatic release.

Fuses.

Too much dependence must not be placed upon the overload attachment to absolutely protect the motor from heavy overloads or short circuits. The overload attachment is only intended to act as a safety device for overloads not greater than 50 per cent. above the rated capacity of the motor with which it is used. For all currents greater than this, the fuses are depended upon. This arrangement, therefore, permits using larger fuses and thus saves the annoyance and expense of frequently renewing them. It also enables the use of a high-class reliable fuse, which might prove too expensive if it were frequently blown.

For perfect protection of a motor not larger than 50 H. P. at the least cost, we recommend our overload motor-starter with enclosed fuses. Short circuits and heavy overloads will then be handled in a thoroughly reliable manner with entire freedom from flaming or arcing.



UNIVERSAL MOTOR-STARTER.

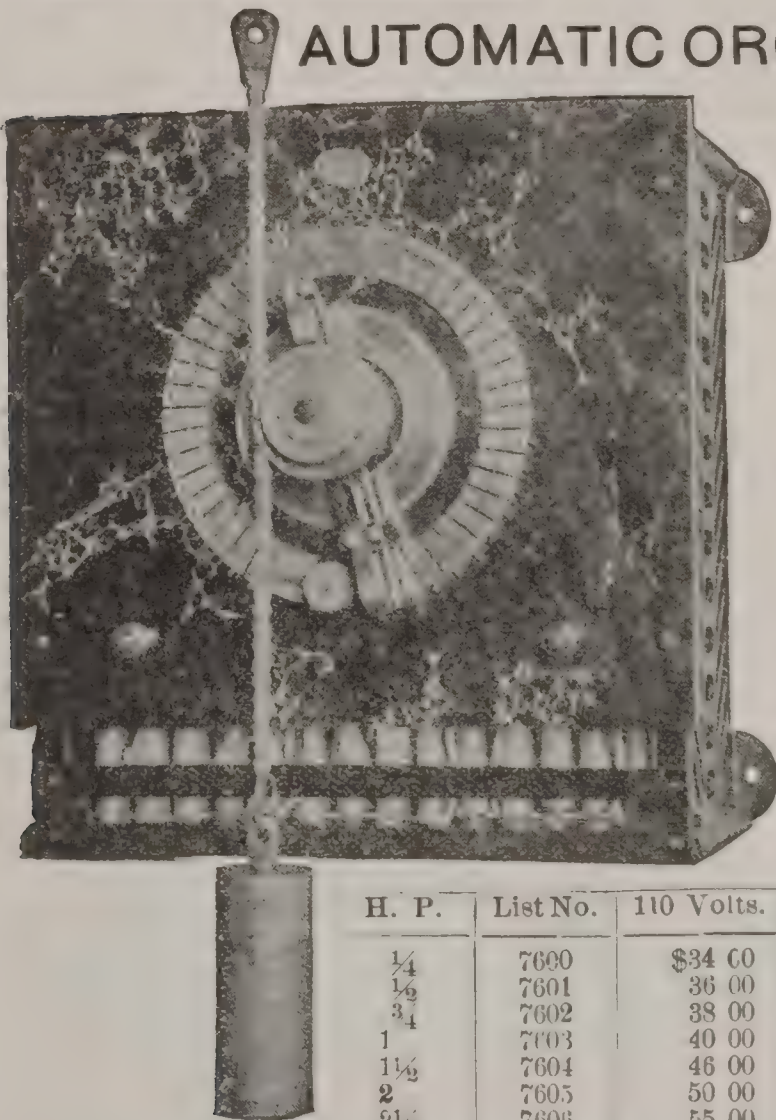
Includes Knife Switch and Fuses, Overload and Current Indicator, and Magnetic Release.

For full description see Overload Motor-Starter on page 561.

H.P.	List No.	125 Volts.	List No.	240 Volts.	List No.	500 Volts.
1/4 to 2	7560	\$20 00	7570	\$20 00	7585	\$20 00
3	7561	21 00	7571	21 00	7586	21 00
5	7562	28 00	7572	28 00	7587	25 00
7 1/2	7563	33 00	7573	30 00	7588	25 00
10	7564	52 00	7574	31 00	7589	31 00
15	7565	60 00	7575	35 00	7590	35 00
20	7566	65 00	7576	59 00	7591	38 00
25	7567	86 00	7577	63 00	7592	59 00
30	75 8	90 00	7578	65 00	7593	63 00
35	7569	92 00	75 9	65 00	7594	63 00
40			7580	90 00	7595	80 00
50			7581	95 00	7596	85 00

Prices above 50 H. P. on application.

AUTOMATIC ORGAN REGULATORS.



Adapted for regulating the speed of a motor from full stop to full speed when used for working the bellows of a pipe organ.

Our Automatic Starting Box must be used in connection with this regulator.

Has renewable segments.

DIRECTIONS FOR ORDERING.

1. The amount of current in amperes necessary to start the motor when attached to the mechanism for operating the bellows.
2. The voltage of the circuit.
3. The current consumed by the motor when operating the bellows at full speed with no external resistance in circuit.
4. The amount of resistance in ohms necessary to stop the motor when operating under its regular load.
5. State whether a series or shunt wound motor is to be used.

H. P.	List No.	110 Volts.	List No.	220 Volts.	List No.	500 Volts.
1/4	7600	\$34 00	7610	\$34 00	7620	\$40 00
1/2	7601	36 00	7611	36 00	7621	42 00
3/4	7602	38 00	7612	38 00	7622	45 00
1	7603	40 00	7613	40 00	7623	50 00
1 1/2	7604	46 00	7614	46 00	7624	56 00
2	7605	50 00	7615	50 00	7625	60 00
2 1/2	7606	55 00	7616	55 00	7626	65 00
3	7607	60 00	7617	60 00	7627	70 00
4	7608	80 00	7618	80 00	7628	90 00
5	7609	100 00	7619	100 00	7629	114 00

“COMPOUND” STARTING AND REGULATING RHEOSTATS.

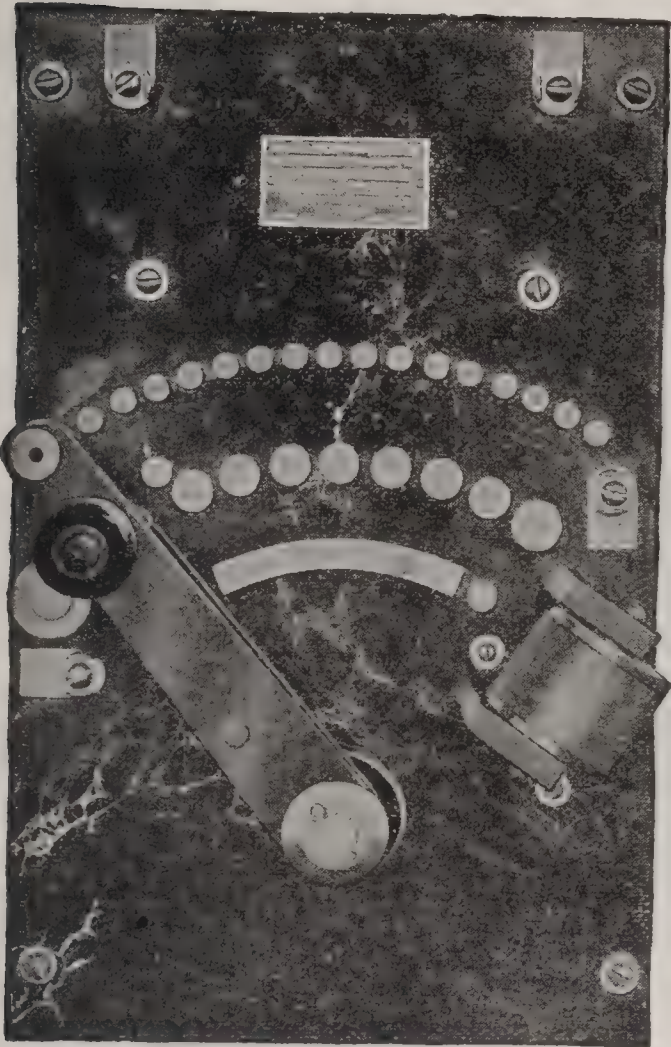
With Underload Release.

For Machine Tools, Etc.

Arranged with armature resistance for starting duty only, and field resistance for 2 to 1 speed variation.

These ratings are on the basis of horse power output at normal speed, and same output at maximum speed.

We cannot fill orders for this apparatus unless given the maximum field current of the motor, and the number of ohms necessary for insertion in the shunt field of the motor to increase the speed the desired amount.



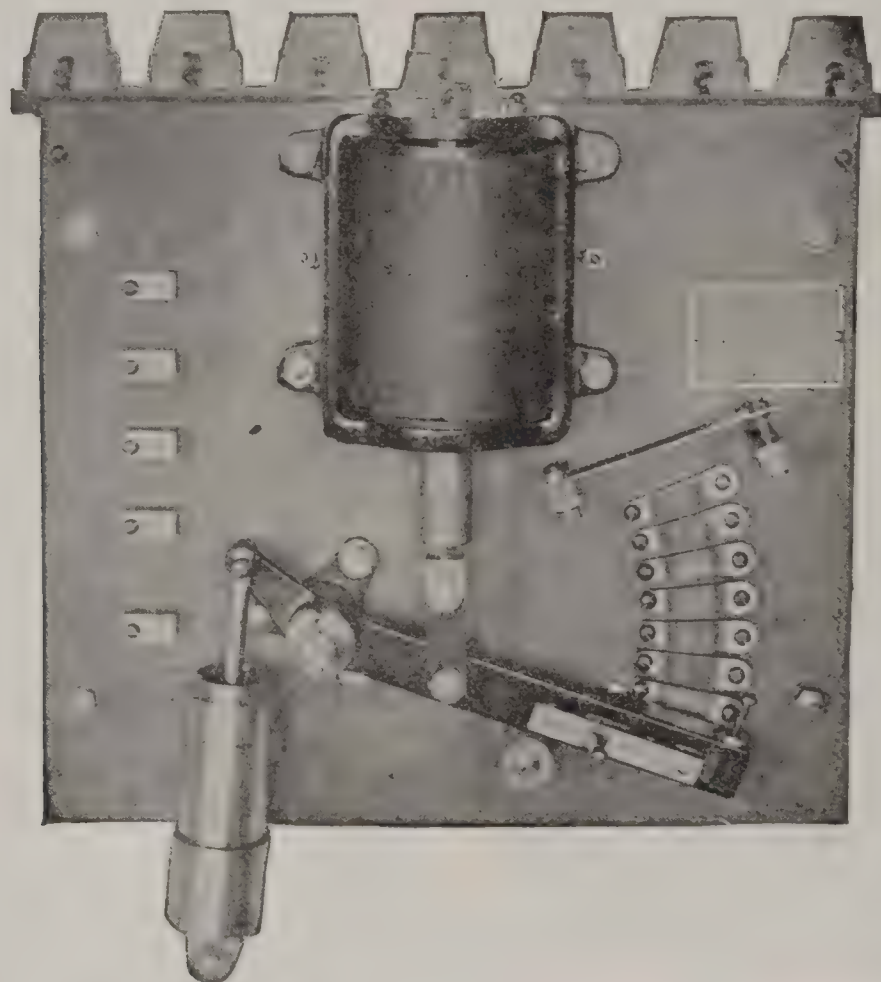
H. P.	LIST No.	110 VOLTS.	LIST No.	220 VOLTS.	LIST No.	500 VOLTS.
1/2 to 1	15970	\$17 00	15979	\$17 00	15990	\$17 00
2	15971	17 00	15980	17 00	15991	17 00
3	15972	18 00	15981	18 00	15992	18 00
4	15973	20 00	15982	19 00	15993	19 00
5	15974	20 00	15983	19 00	15994	19 00
7 1/2	15975	26 50	15984	23 00	15995	23 00
10	15976	35 00	15985	29 50	15996	29 50
15	15977	39 00	15986	34 00	15997	34 00
20	15978	43 00	15987	42 00	15998	42 00
25			15988	49 00	15999	45 00
30			15989	55 00	16000	51 00

With Underload and Overload Release.

H. P.	LIST No.	110 VOLTS.	LIST No.	220 VOLTS.	LIST No.	500 VOLTS.
1/2 to 1	16001	\$21 00	16010	\$21 00	16021	\$21 00
2	16002	21 00	16011	21 00	16022	21 00
3	16003	22 00	16012	22 00	16023	22 00
4	16004	24 00	16013	23 00	16024	23 00
5	16005	24 00	16014	23 00	16025	23 00
7 1/2	16006	30 50	16015	27 00	16026	27 00
10	16007	42 00	16016	33 50	16027	33 50
15	16008	46 00	16017	39 00	16028	39 00
20	16009	50 00	16018	49 00	16029	49 00
25			16019	52 00	16030	52 00
30			16020	58 00	16031	58 00

SELF-STARTERS

For Non-Reversible Motors Operating Belted Elevators, Pumps, Etc.



H. P.	List No.	110 Volts.	List No.	220 Volts.	List No.	500 Volts.
1 to 3	16035	\$ 80 00	16048	\$ 80 00	16061	\$ 95 00
4 to 5	16036	85 00	16049	85 00	16062	100 00
7½	16037	90 00	16050	95 00	16063	105 00
10	16038	95 00	16051	100 00	16064	105 00
15	16039	120 00	16052	100 00	16065	110 00
20	16040	250 00	16053	125 00	16066	125 00
25 to 30	16041	300 00	16054	300 00	16067	300 00
35 to 45	16042	330 00	16055	330 00	16068	330 00
50	16043	390 00	16056	380 00	16069	380 00
60	16044	600 00	16057	400 00	16070	400 00
75	16045	600 00	16058	430 00	16071	430 00
100	16046	800 00	16059	550 00	16072	550 00
150	16047	1200 00	16060	900 00	16073	900 00

(5 H. P. Size.)

NOTE.—These list prices include an independent Solenoid controlled Switch for opening and closing the circuit automatically. Under certain conditions, where it is desired to operate the self-starter and handle the main current by a manually controlled switch, it is obvious that the Solenoid Switch may be dispensed with, and deduction from list prices may then be made as follows: 110 volts, \$25.00; 220 volts, \$25.00; 500 volts, \$32.00.

MOTOR-STARTING RHEOSTATS.

With Automatic Release and Enclosed Moisture-Proof Resistance.



(5 H. P. Front.)

The general remarks with regard to the ordering and operation of open type motor starters are equally applicable to the enclosed type apparatus, the essential difference between the two types being in the character of the resistance employed. In the enclosed type the resistance is hermetically sealed inside an iron casting, which casting is filled with an insulating, heat conducting substance, which packs closely about the conductor, and which serves to transmit the heat from the conductor to the external iron casting for radiation. These starters are particularly applicable to damp locations by reason of the resistance conductors being enclosed in a water-proof casing, and the distance which it is necessary for a current to traverse in passing from contacts to the ground over a surface film of moisture.

All the current-carrying contact parts on the rheostat are made renewable without disturbing the interior connections, the buttons being made in two pieces, of which the top one may be removed and replaced at slight expense. The lever contacts from 5 H. P. up are composed of a heavy brass shoe with spring pressing same into close contact with the buttons and are easily and readily renewable.

HORSE POWER.	List No.	125 Volts.	List No.	240 Volts.	List No.	500 Volts.
1/4	12002	\$5 60	12016	\$5 60	12030	\$6 20
1/2	12003	7 50	12017	7 50	12031	8 00
1	12004	7 50	12018	7 50	12032	8 00
2	12005	7 50	12019	7 50	12033	8 00
3	12006	8 50	12020	8 50	12034	8 50
5	12007	13 80	12021	12 20	12035	12 20
7 1/2	12008	22 00	12022	16 00	12036	16 00
10	12009	26 00	12023	18 00	12037	18 00
15	12010	34 00	12024	25 00	12038	25 00
20	12011	37 00	12025	34 00	12039	30 00
25	12012	44 00	12026	37 00	12040	34 00
30	12013	50 00	12027	44 00	12041	40 00
40	12014	.....	12028	54 00	12042	54 00
50	12015	.....	12029	68 00	12043	68 00

DOUBLE LEVER MOTOR-STARTING RHEOSTAT.



With Enclosed Moisture-Proof Resistance, Automatic Release and Interlocked Overload Circuit Breaker.

This Rheostat is similar to the one described above with the addition of an overload device. This overload device is made up of a second arm, pivoted upon the same hub-post as the rheostat contact arm and held in its closed position by means of the latch of an overload circuit-breaker movement, by which it is released on the current becoming abnormal. This lever is so interlocked with the contact lever by means of a simple mechanism consisting of only one part and a spring that when once in its open position it is impossible to close same except by the return of the rheostat contact lever to the starting position, thus rendering impossible the closure of the circuit-breaker lever without inserting the whole of the starting resistance.

The circuit-breaker lever is, with this exception, independent of the contact lever, and will interrupt the circuit at any time that an overload occurs, irrespective of the position of the contact lever.

HORSE POWER.	List No.	125 Volts.	List No.	240 Volts.	List No.	500 Volts.
1/4	12045	\$16 00	12056	\$16 00	12067	\$16 00
1/2	12046	16 00	12057	16 00	12068	16 00
1	12047	16 00	12058	16 00	12069	16 00
2	12048	16 00	12059	16 00	12070	16 00
3	12049	16 00	12060	16 00	12071	16 00
5	12050	18 00	12061	18 00	12072	18 00
7 1/2	12051	28 80	12062	28 80	12073	28 80
10	12052	29 40	12063	29 40	12074	29 40
15	12053	40 00	12064	32 00	12075	32 00
20	12054	55 60	12065	48 00	12076	48 00
25	12055	62 00	12066	50 00	12077	50 00

MOTOR SPEED-REGULATORS.

With Automatic Release.



Automatically holds the lever squarely over each segment and opens the circuit on failure of current supply.

These rheostats are designed to **reduce** the speed of a motor from normal by the insertion of external ohmic resistance in the armature circuit. Both the resistance and the contacts have sufficient capacity to carry the current continuously on any step, provided this current does not exceed the amount required to operate the motor at its rated torque.

By this is meant that if the current required to operate the motor at full speed, with no rheostatic resistance in circuit, is approximately equal to the normal rating of the rheostat and motor, then our standard motor speed-regulator will have sufficient carrying capacity and sufficient ohmic resistance to change the speed of the motor from full speed to one-half of full speed when driving a full torque load.

If the current required to operate the motor under the above conditions is **greater** than the rated capacity of the rheostat, the same will operate at a higher temperature than that for which it is designed, and will cause the motor to run slower than one-half of full speed when all the resistance of the rheostat is inserted, with consequent likelihood of damage to the motor and rheostat.

If the current required to operate the motor at full speed, with no rheostat resistance in circuit, is **less** than the rated capacity of the rheostat, the motor is likely to operate at a higher speed than one-half of full speed when all the resistance of the rheostat is in circuit.

It will be noted, therefore, that the speed at which the motor will revolve depends upon the load which it is driving when attempt is made to alter its speed by the insertion of external ohmic resistance into the armature circuit.

H. P.	120 VOLTS.				220 VOLTS			
	List No.	Ventilating Fan Type.	List No.	Machine Type.	List No.	Ventilating Fan Type.	List No.	Machine Type.
1/4	12090	\$10 00	12105	\$10 00	12120	\$10 00	12135	\$10 00
1/2	12091	11 00	12106	11 00	12121	11 00	12136	11 00
1	12092	13 00	12107	18 00	12122	13 00	12137	18 00
2	12093	20 00	12108	25 00	12123	20 00	12138	25 00
3	12094	25 00	12109	30 00	12124	25 00	12139	30 00
5	12095	38 00	12110	40 00	12125	38 00	12140	50 00
7 1/2	12096	50 00	12111	50 00	12126	50 00	12141	62 00
10	12097	65 00	12112	65 00	12127	65 00	12142	65 00
15	12098	90 00	12113	90 00	12128	70 00	12143	70 00
20	12099	105 00	12114	115 00	12129	90 00	12144	100 00
25	12100	135 00	12115	135 00	12130	130 00	12145	130 00
30	12101	150 00	12116	150 00	12131	140 00	12146	140 00
35	12102	180 00	12117	180 00	12132	180 00	12147	180 00
40	12103	220 00	12118	220 00	12133	200 00	12148	200 00
50	12104	270 00	12119	270 00	12134	250 00	12149	250 00

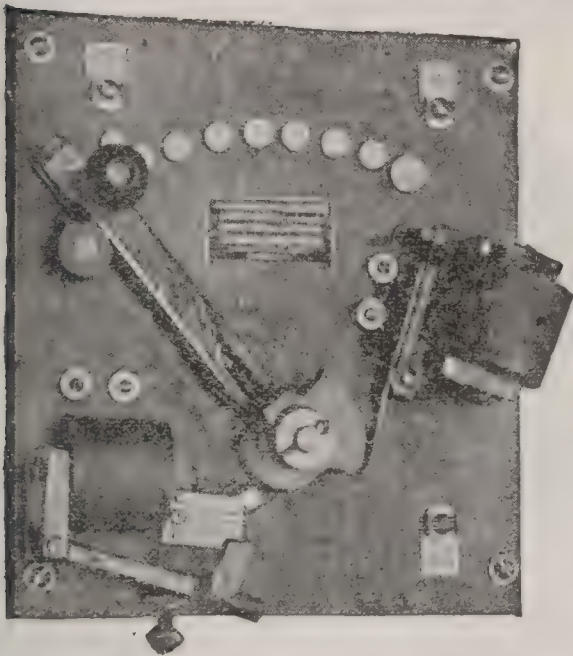
500 Volt Ventilating Fan type or Machine type Regulators, prices on application.

For speed regulators **without** automatic release deduct from above list prices as follows:

1/4 to 1 H. P., inclusive.....	\$2 00
2 " 3 " " "	3 00
5 " 10 " " "	4 00
15 " 20 " " "	6 00
25 " 30 " " "	10 00
40 " 50 " " "	15 00

All speed-regulators above 5 H. P., 110 Volts, 10 H. P. 220 Volts, and 15 H. P. 500 Volts, are equipped with renewable segments. Smaller sizes have button contacts.

OVERLOAD MOTOR SPEED-REGULATORS.



Construction is similar to speed-regulator described on preceding page with addition of overload attachment.
When ordering speed-regulators state horse power and voltage of the motor ; name of maker.
The winding of the motor, stating whether same is plain series wound, plain shunt-wound or compound-wound.
Nature of the machine which the motor is to operate—for example : a ventilating fan, a lathe, a pump, a printing press, etc.
Normal speed of the motor to be used.
Maximum speed at which it is desired to operate the motor.
Minimum speed at which it is desired to operate the motor.
Whether controller is to reverse direction of the motor or not.
If the motor is to be reversed, whether or not full speed is desired in both directions.
The type desired, whether it shall be plain or provided with a no-voltage release, with an overload release, or with both.
Whether renewable segments are desired or not.

H. P.	120 VOLTS.				220 VOLTS.			
	List No.	Ventilating Fan Type.	List No.	Machine Type.	List No.	Ventilating Fan Type.	List No.	Machine Type.
1/4	12158	\$ 16.00	12171	\$ 16.00	12186	\$ 16.00	12201	\$ 16.00
1/2	12157	17.00	12172	17 00	12187	17.00	12202	17 00
1	12158	19.00	12173	24.00	12188	19 00	12203	24 00
2	12159	26.00	12174	31.00	12189	26.00	12204	31 00
3	12160	31 00	12175	36 00	12190	31.00	12205	36 00
5	12161	44 00	12176	48.00	12191	44.00	12206	58.00
7 1/2	12162	58.00	12177	58.00	12192	58.00	12207	70.00
10	12163	73.00	12178	73 00	12193	73.00	12208	73.00
15	12164	100 00	12179	100.00	12194	80.00	12209	80 00
20	12165	119.00	12180	129 00	12195	104.00	12210	114.00
25	12166	149.00	12181	149 00	12196	144.00	12211	144.00
30	12167	170.00	12182	170 00	12197	160.00	12212	160 00
35	12168	200.00	13183	200 00	12198	200.00	12213	200 00
40	12169	240.00	12184	240.00	12199	220.00	12214	220 00
50	12170	300.00	12185	300.00	12200	280.00	12215	280.00

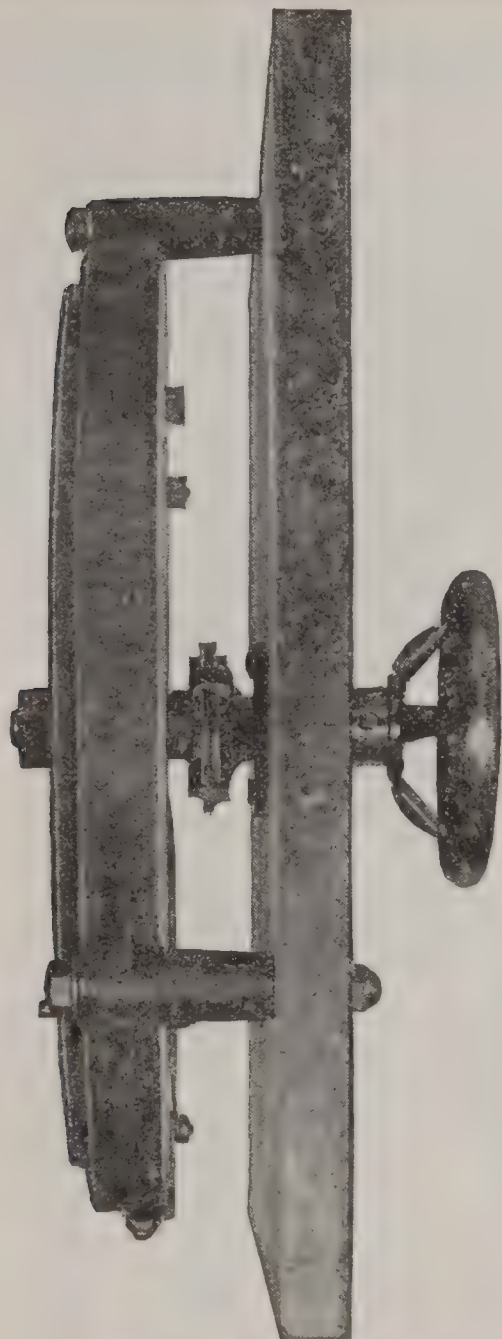
Prices for 500 Volt Overload Regulators on application.

UNIVERSAL MOTOR SPEED-REGULATORS.



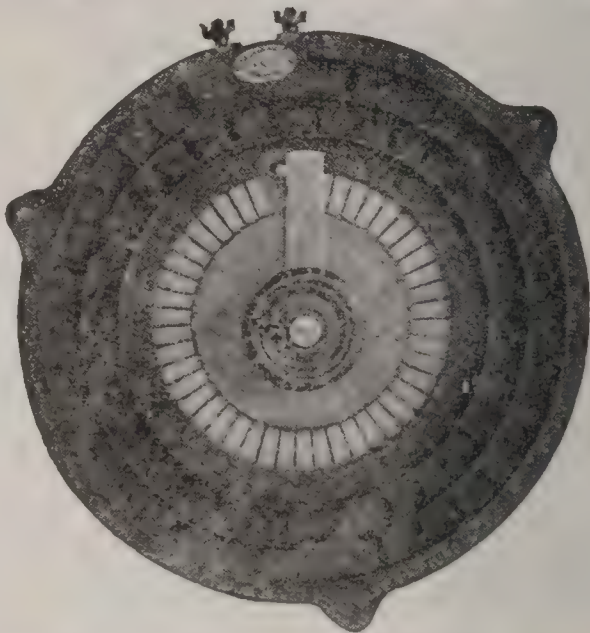
Double Pole Knife Switch and Fuses.
Overload Attachment and Current Indicator.

H. P.	List No.	125 Volts.	List No.	240 Volts.	List No.	500 Volts.
1/4	12220	\$ 23.00	12236	\$ 23.00	12252	\$ 23.00
1/2	12221	26.00	12237	26.00	12253	26.00
1	12222	31.00	12238	31.00	12254	31.00
2	12223	36.00	12239	36 00	12255	36 00
3	12224	50 00	12240	50.00	12256	50.00
5	12225	65 00	12241	65.00	12257	65 00
7 1/2	12226	90.00	12242	80.00	12258	80.00
10	12227	100.00	12243	96.00	12259	96 00
15	12228	150.00	12244	116 00	12260	116.00
20	12229	180.00	12245	150 00	12261	150.00
25	12230	220 00	12246	185 00	12262	180 00
30	12231	250 00	12247	207 00	12263	202 00
35	12232	300 00	12248	275.00	12264	260 60
40	12233	335 00	12249	320 00	12265	300 00
50	12234	410.00	12250	380.00	12266	360 00
75	12235	565 00	12251	500.00	12267	470.00



Rear of Switchboard Type.

FIELD REGULATORS.



12-inch Regulator. Front of Switchboard Type.

Apparatus consists of a base of insulating material to which is attached the resistance wire, contacts and lever; the whole being carried by a japanned iron casing, which not only gives the instrument a handsome finish, but prevents the possibility of direct contact with the heat radiating portion of the rheostat. No enamel or similar material is used in the construction, and the resistance material itself cannot possibly disintegrate through misuse. Grounding is impossible on account of the insulating base and special compound. This insures the maximum factor of safety for the apparatus, as it makes certain that current will be carried without permanent damage up to the actual burning out point of the wire itself.

With field rheostats for rear of switchboard mounting, we furnish a 5½ inch hand wheel which is made throughout of copper, handsomely polished and lacquered. Our hand wheels are of an entirely new design and are superior in construction and appearance to anything now on the market.

For 75 Volts.

List No.	Maximum Amperes.		Ohms of Field to which Rheostat is well suited.	Total Ohms of Rheostat	No. of Contacts	Diameter and Number of Plates		Price for Front of Switch-Board	List No.	Price for Rear of Switch-Board
	1st Step	Last Step								
12290	.45	.23	200-165	200.	26	9	One	\$ 6 80	12308	\$ 13 30
12291	.6	.3	165-125	150.	26	9	"	6 80	12309	13 30
12292	.75	.38	125-100	120.	26	9	"	6 80	12310	13 30
12293	.9	.45	100- 85	100.	26	9	"	6 80	12311	13 30
12294	1.2	.6	85- 65	75.	26	9	"	6 80	12312	13 30
12295	1.5	.75	65- 50	60.	26	9	"	6 80	12313	13 30
12296	1.8	.9	50- 42	50.	26	9	"	6 80	12314	13 30
12297	2.4	1.2	42- 30	37.5	26	9	"	6 80	12315	13 30
12298	3.	1.5	30- 25	30.	26	9	"	6 80	12316	13 30
12299	4.	2.	25- 18	22.5	26	9	"	6 80	12317	13 30
12300	5.	2.5	18- 15	18.	26	9	"	6 80	12318	13 30
12301	6.	3.	15- 12	15.	26	9	"	6 80	12319	13 30
12302	8.	4.	12-9.4	11.25	45	12	"	9 40	12320	15 90
12303	10.	5.	9.4-7.5	9.	45	12	"	9 40	12321	15 90
12304	12.	6.	7.5-6.	7.2	45	12	"	9 40	12322	15 90
12305	16.	8.	6. -5.	5.7	90	12	Two	11 80	12323	18 30
12306	20.	10.	5. -3.8	4.5	90	12	"	11 80	12324	18 30
12307	25.	12.	3.8-3.	3.7	90	12	Threc	26 60	12325	33 10

Continued on next page.

FIELD REGULATORS.

For 125 Volts.

List No.	Maximum Amperes.		Ohms of Field to which Rheostat is well suited	Total Ohms. of Rheostat.	Num-ber of Con-tracts.	Diameter and Number of Plates.		Prices for Front of Switchboard.	List No.	Prices for Rear of Switchboard.
	1st Step.	Last Step.								
12330	.5	.25	300—250	300	26	9 One		\$6 80	12352	\$13 30
12331	.63	.33	250—200	240.	26	9 “		6 80	12353	13 30
12332	.75	.38	200—165	200.	26	9 “		6 80	12354	13 30
12333	1.	.50	165—125	150.	26	9 “		6 80	12355	13 30
12334	1.25	.63	125—100	120.	26	9 “		6 80	12356	13 30
12335	1.5	.75	100—80	100.	26	9 “		6 80	12357	13 30
12336	2	1.	80—60	75.	26	9 “		6 80	12358	13 30
12337	2.5	1.25	60—50	60.	26	9 “		6 80	12359	13 30
12338	3.	1.5	50—40	50	26	9 “		6 80	12360	13 30
12339	4.	2	40—30	37.5	26	9 “		6 80	12361	13 30
12340	5	2.5	30—25	30.	45	12 “		9 40	12362	15 90
12341	6.	3.	25—20	25.	45	12 “		9 40	12363	15 90
12342	8.	4.	20—16	18.8	45	12 “		9 40	12364	15 90
12343	10.	5.	16—13	15.	65	15 “		11 80	12365	18 30
12344	12.5	6.3	13—10	12.	65	15 “		11 80	12366	18 30
12345	16.	8.	10—8	9 4	130	15 Two		26 60	12367	33 10
12346	20.	10.	8—6.5	7.5	130	15 “		26 60	12368	33 10
12347	25.	12.5	6.5—5.	6 3	130	15 “		26 60	12369	33 10
12348	30.	15.	5—4.2	5.	130	15 Three		39 50	12370	46 00
12349	40.	20.	4.2—3.1	3 75	130	15 Four		53 00	12371	59 50
12350	50.	25.	3.1—2.5	3.	130	15 Five		66 00	12372	72 50
12351	60.	30.	2.5—2.1	2.5	130	15 Six		80 00	12373	86 50

For 250 Volts.

12375	1.	.5	300—250	300.	26	9 One		\$6 80	12391	\$13 30
12376	1.25	.63	250—200	240.	26	9 “		6 80	12392	13 30
12377	1.5	.75	200—165	200.	26	9 “		6 80	12393	13 30
12378	2.	1.	165—125	150.	26	9 “		6 80	12394	13 30
12379	2.5	1.25	125—100	120	45	12 “		9 40	12395	15 90
12380	3.	1.5	100—85	100.	45	12 “		9 40	12396	15 90
12381	4.	2.	85—63	75.	45	12 “		9 40	12397	15 90
12382	5.	2.5	63—50	60.	65	15 “		11 80	12398	18 30
12383	6.3	3.2	50—40	48.	65	15 “		11 80	12399	18 30
12384	8.	4.	40—30	37.5	130	15 Two		26 60	12400	33 10
12385	10.	5.	30—25	30.	130	15 “		26 60	12401	33 10
12386	12.5	6.3	25—20	25.	130	15 “		26 60	12402	33 10
12387	15.	7.5	20—16.5	20.	130	15 Three		39 50	12403	46 00
12388	20.	10.	16.5—12.5	15.	130	15 Four		53 00	12404	59 50
12389	25.	12.5	12.5—10	12.	130	15 Five		66 00	12405	72 50
12390	30.	15.	10.—8.3	10.	130	15 Six		80 00	12406	86 50

For 500 Volts.

12410	1.	.5	600—500	600.	65	15 One		\$11 40	12423	\$17 90
12411	1.25	.63	500—400	480.	45	12 “		9 40	12424	15 90
12412	1.5	.75	400—330	400.	45	12 “		9 40	12425	15 90
12413	2.	1.	330—250	300.	45	12 “		9 40	12426	15 90
12414	2.5	1.25	250—200	240.	65	15 “		11 80	12427	18 30
12415	3.	1.5	200—165	200.	65	15 “		11 80	12428	18 30
12416	4.	2.	165—125	150.	130	15 Two		26 60	12429	33 10
12417	5.	2.5	125—100	120.	130	15 “		26 60	12430	33 10
12418	6.	3.	100—85	100.	130	15 “		26 60	12431	33 10
12419	7.5	3.8	85—65	80.	130	15 Three		39 50	12432	46 00
12420	10	5.	65—50	60.	130	15 Four		53 00	12433	59 50
12421	12.5	6.3	50—40	48.	130	15 Five		66 00	12434	72 50
12422	15.	7.5	40—35	40.	130	15 Six		80 00	12435	86 50

CARPENTER RESISTANCE UNITS.

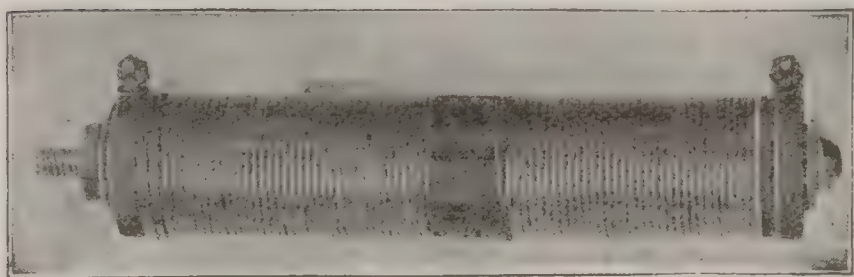


Enclosed Type.

Ample margin of safety for overload.

Low temperature rise.

No temperature change in resistance.



Open Type.

Wound on heavy porcelain base.

Ohms and amperes stamped on terminal band of each unit.

Accurately and carefully made.

75 Watts Continuous Capacity.

75 Watts Continuous Capacity.

Open Type.

Enclosed Type.

List No.	Ohms	AMPERES.		Price Each	List No.	Ohms.	AMPERES.		Price Each
		Continuously.	Start'g S'rvice (15 Seconds)				Continuously.	Start'g S'rvice (15 Seconds)	
12440	1.	8.7	17.4	\$0 75	12476	1.	8.7	17.4	\$1 35
12441	1.25	7.8	15.6		12477	1.25	7.8	15.6	
12442	1.55	7.	14.		12478	1.55	7.	14.	
12443	1.85	6.4	12.8	75	12479	1.85	6.4	12.8	1 35
12444	2.2	5.8	11.6		12480	2.2	5.8	11.6	
12445	2.8	5.1	10.2		12481	2.8	5.1	10.2	
12446	3.5	4.6	9.2	75	12482	3.5	4.6	9.2	1 35
12447	4.4	4.1	8.2		12483	4.4	4.1	8.2	
12448	5.5	3.7	7.4		12484	5.5	3.7	7.4	
12449	7	3.3	6.6	75	12485	7.	3.3	6.6	1 35
12450	8.8	2.9	5.8		12486	8.8	2.9	5.8	
12451	11.	2.6	5.2		12487	11.	2.6	5.2	1 35
12452	14.	2.3	4.6	75	12488	14.	2.3	4.6	
12453	17.5	2.1	4.2		12489	17.5	2.1	4.2	
12454	22.	1.8	3.6	75	12490	22.	1.8	3.6	1 35
12455	27.	1.6	3.2		12491	27.	1.6	3.2	
12456	35	1.4	2.8		12492	35.	1.4	2.8	1 35
12457	44.	1.3	2.6	75	12493	44.	1.3	2.6	
12458	55.	1.1	2.2		12494	55.	1.1	2.2	
12459	70.	1.	2.	75	12495	70.	1.	2.	1 35
12460	88.	.92	1.84		12496	88.	.92	1.84	
12461	110.	.82	1.64	75	12497	110.	.82	1.64	1 35
12462	140.	.73	1.46		12498	140.	.73	1.46	
12463	175.	.65	1.3		12499	175.	.65	1.3	1 40
12464	220.	.58	1.16	80	12500	220.	.58	1.16	
12465	275.	.52	1.		12501	275.	.52	1.	
12466	340.	.47	.94	80	12502	340.	.47	.94	1 45
12467	425.	.42	.84		12503	425.	.42	.84	
12468	530.	.38	.76		12504	530.	.38	.76	1 55
12469	660.	.34	.68	85	12505	660.	.34	.68	
12470	820.	.3	.6		12506	820.	.3	.6	
12471	930.	.28	.56	95	12507	930.	.28	.56	1 55
12472	1160.	.26	.52		12508	1160.	.26	.52	
12473	1400.	.23	.46		12509	1400.	.23	.46	
12474	1750.	.2	.41	95	12510	1750.	.2	.41	1 55
12475	2000.	.19	.38		12511	2000.	.19	.38	

Continued on next page.

CARPENTER RESISTANCE UNITS.**150 Watts Continuous Capacity.****150 Watts Continuous Capacity.****Open Type.****Enclosed Type.**

List No.	Ohms.	AMPERES.		Price Each	List No.	Ohms.	AMPERES.		Price Each
		Continuously.	Start'g S'rvice (15 Seconds)				Continuously.	Start'g S'rvice (15 Seconds)	
15729	1.	12.3	25.	\$1 00	12586	1.	12.3	25.	\$1 80
15730	1.25	11.	22.		12587	1.25	11.	22.	
15731	1.55	9.8	20.		12588	1.55	9.8	20.	
15732	1.85	9.	18.		12589	1.85	9.	18.	
15733	2.2	8.2	16.5		12590	2.2	8.2	16.5	
15734	2.8	7.2	14.5	1 00	12591	2.8	7.2	14.5	1 80
15735	3.5	6.5	13.		12592	3.5	6.5	13.	
15736	4.4	5.8	11.5		12593	4.4	5.8	11.5	
15737	5.5	5.2	10.5		12594	5.5	5.2	10.5	
15738	7.	4.6	9.2		12595	7.	4.6	9.2	
15739	8.8	4.1	8.2	1 00	12596	8.8	4.1	8.2	1 80
15740	11.	3.6	7.5		12597	11.	3.6	7.5	
15741	14.	3.2	6.5		12598	14.	3.2	6.5	
15742	17.5	2.9	6.		12599	17.5	2.9	6.	
15743	22.	2.5	5.		12600	22.	2.5	5.	
15744	27.	2.2	4.5	1 00	12601	27.	2.2	4.5	1 80
15745	35.	1.9	4.		12602	35.	1.9	4.	
15746	44.	1.8	3.6		12603	44.	1.8	3.6	
15747	55.	1.5	3.		12604	55.	1.5	3.	
15748	70.	1.4	2.8		12605	70.	1.4	2.8	
15749	88.	1.3	2.6	1 00	12606	88.	1.3	2.6	1 80
15750	110.	1.1	2.3		12607	110.	1.1	2.3	
15751	140.	1.	2.		12608	140.	1.	2.	
15752	175.	.9	1.8		12609	175.	.9	1.8	
15753	220.	.82	1.6		12610	220.	.82	1.6	
15754	275.	.73	1.5	1 10	12611	275.	.73	1.5	1 90
15755	340.	.76	1.3		12612	340.	.66	1.3	
15756	425.	.59	1.2		12613	425.	.59	1.2	
15757	530.	.53	1.		12614	530.	.53	1.	
15758	660.	.48	.96		12615	660.	.48	.96	
15759	820.	.42	.84	1 20	12616	820.	.42	.84	2 00
15760	930.	.39	.79		12617	930.	.39	.79	
15761	1160.	.37	.73		12618	1160.	.37	.73	

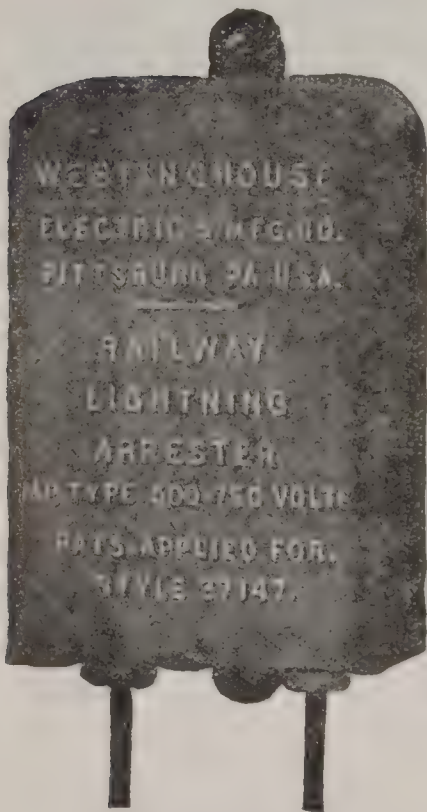
210 Watts Continuous Capacity.**210 Watts Continuous Capacity.****Open Type.****Enclosed Type.**

List No.	Ohms.	AMPERES.		Price Each	List No.	Ohms.	AMPERES.		Price Each
		Continuously.	Start'g S'rvice (15 Seconds)				Continuously.	Start'g S'rvice (15 Seconds)	
12553	1.	14.8	30.	\$1 30	12619	1.	14.8	30.	\$2 20
12554	1.25	13.2	26.		12620	1.25	13.2	26.	
12555	1.55	11.8	23.		12621	1.55	11.8	23.	
12556	1.85	10.8	22.		12622	1.85	10.8	22.	
12557	2.2	9.8	20.		12623	2.2	9.8	20.	
12558	2.8	8.6	18.	1 30	12624	2.8	8.6	18.	2 20
12559	3.5	7.8	16.		12625	3.5	7.8	16.	
12560	4.4	7.	14.		12626	4.4	7.	14.	
12561	5.5	6.	12.		12627	5.5	6.	12.	
12562	7.	5.5	11.		12628	7.	5.5	11.	
12563	8.8	4.9	10.	1 30	12629	8.8	4.9	10.	2 20
12564	11.	4.3	9.		12630	11.	4.3	9.	
12565	14.	3.8	7.6		12631	14.	3.8	7.6	
12566	17.5	3.5	7.		12632	17.5	3.5	7.	
12567	22.	3.	6.		12633	22.	3.	6.	
12568	27.	2.6	5.	1 30	12634	27.	2.6	5.	2 20
12569	35.	2.3	4.6		12635	35.	2.3	4.6	
12570	44.	2.16	4.2		12636	44.	2.16	4.2	
12571	55.	1.8	3.6		12637	55.	1.8	3.6	
12572	70.	1.68	3.3		12638	70.	1.68	3.3	
12573	88.	1.56	3.1	1 30	12639	88.	1.56	3.1	2 20
12574	110.	1.32	2.6		12640	110.	1.32	2.6	
12575	140.	1.2	2.4		12641	140.	1.2	2.4	
12576	175.	1.08	2.2		12642	175.	1.08	2.2	
12577	220.	.98	2.		12643	220.	.98	2.	
12578	275.	.83	1.8	1 30	12644	275.	.88	1.8	2 20
12579	340.	.79	1.6		12645	340.	.79	1.6	
12580	425.	.71	1.4		12646	425.	.71	1.4	
12581	530.	.64	1.3		12647	530.	.64	1.3	
12582	660.	.58	1.2		12648	660.	.58	1.2	
12583	820.	.5	1.	1 50	12649	820.	.5	1.	2 40
12584	930.	.47	.9		12650	930.	.47	.9	
12585	1160.	.44	.8		12651	1160.	.44	.8	

LIGHTNING ARRESTERS.

Westinghouse M. P. Arrester for Alternating-Current or Direct-Current Circuits.

The Westinghouse M. P. Lightning Arrester, which is suitable for either alternating-current or direct-current circuits, embodies a new principle. By a special method of development tests an arrester has been produced which has an indefinite length of life, and offers an extra large freedom of discharge, Single Pole Line Arrester for Railway Service. Line and Car Use. Type M. P.



List No.	Circuit Voltage.	Price.
37147	500 to 750	\$4 50

Note.—This arrester can be used as a station arrester also.

Choke Coils.

Multiple Spark Gap Choke Coil for Street Railway Service.

List No.	Mfg. No.	Continuous Capacity.	Price Each.
7728	2536	65 amperes.....	\$10 00
7729	3811	125 ".....	20 00

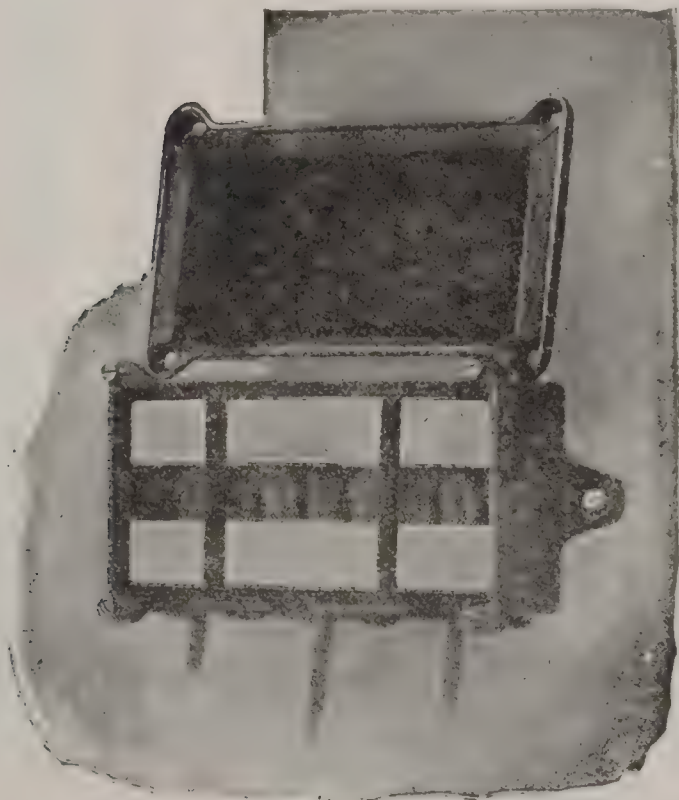
The above rating is for a rise in temperature of 25° C, Lightning arresters not included in price of choke coil.

Station and Line Arresters.

For Direct-Current Circuits.

List No.		Price.
1810	Single Pole Station Arrester for Arc Circuits up to 4000 volts	\$10 00
1811	Single Pole Line Arrester for Arc Circuits up to 4000 volts.....	7 00

No. 1811 is similar to No. 1810, but is enclosed in an iron box for line use.



No. 47034. Showing Cover Removed.

Alternating-Current Lightning Arresters.

Non-Arcing Metal Double Pole Line Arrester.

Type C.

List No.	Circuit Voltage.	Price.
47034	500 to 1250	\$4 50
*48231	500 to 1250	3 00

*Unit complete without case.

Note.—This arrester is double pole up to 1250 volts, and single pole from 1250 to 2500 volts.

G. E. LIGHTNING ARRESTERS.**For Direct Current Circuits.**

The Type MD arrester is standard for direct current circuits. It is furnished for lighting and power circuits from 60 to 375 volts, for railway and power circuits from 250 to 850 volts, and for series arc circuits from 2000 to 6000 volts.

List No.	Mfrs. No.	Description.	Price.
For 60 to 200 Volts.			
16321	33619	For station use	\$12 50
16322	33620	In wooden box for line use.....	15 00
16323	33867	Extra resistance	75
For 125 to 375 Volts.			
16324	33621	For station use	12 50
16325	33622	In wooden box for line use.....	15 00
16326	33868	Extra resistance	75
For 250 to 850 Volts.			
16327	33623	For station use	12 50
16328	33625	In wooden box for line use....	15 00
16329	33869	Extra resistance.....	75
For 2000 to 6000 Volts.			
16330	33626	For station use	12 50
16331	33627	In wooden box for line use.....	15 00
16332	33869	Extra resistance.....	75

For Alternating Current Circuits.**Line Arresters without Disconnecting Switches.**

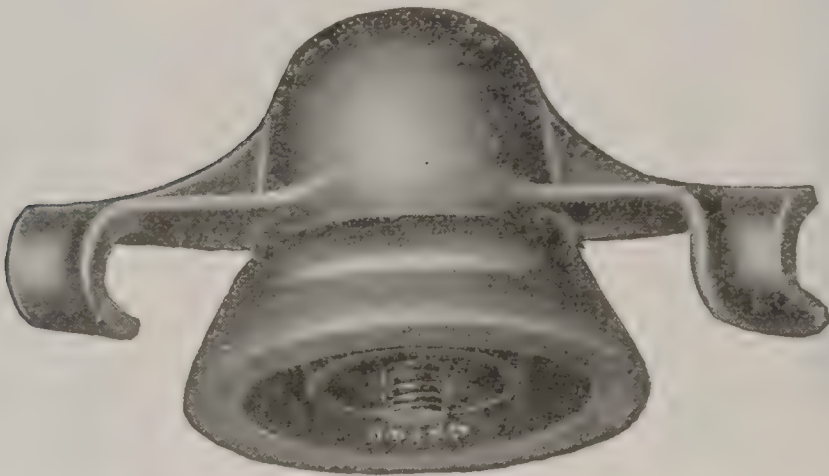
List No.	Mfrs. No.	Description.	List Price.
16285	3413	GE Lightning Arrester for individual series arc lamps and for secondaries of transformers of 300 volts or less.....	\$2 00
16286	2125	1000 Volts, Single-pole (in iron box)	8 00
16287	2127	1000 Volts, Double-pole (in iron box)	10 00
16288	2126	2000 Volts, Single-pole (in iron box)	10 00
16289	2128	2000 Volts, Double-pole (in iron box)	12 50
16290	2129	5000 Volts, Single-pole (in wooden box).....	25 00
16291	3788	7500 Volts, Single-pole (in wooden box).....	42 50
16292	4196	10000 Volts, Single-pole (in wooden box).....	55 00
Station Arresters without Disconnecting Switches.			
16293	11460	1000 Volts, Single-pole	\$8 00
16294	3085	1000 Volts, Double-pole.....	10 00
16295	11461	2000 Volts, Single-pole.....	10 00
16296	3419	2000 Volts, Double-pole.....	12 50
16297	3789	5000 Volts, Single-pole.....	25 00
16298	3790	7500 Volts, Single-pole.....	42 50
16299	3791	10000 Volts, Single-pole.....	55 00
16300	23830	12500 Volts, Single-pole.....	70 00
16301	3793	15000 Volts, Single-pole	85 00
16302	23831	20000 Volts, Single-pole	115 00
16303	23832	25000 Volts, Single-pole.....	170 00
16304	25400	Porcelain Barrier, for use with Cat. No. 3419, for High Potential Arresters.....	50
16305	30733	Extra Resistance for use in all Alternating Current Lightning Arresters.....	1 00

Choke Coils for use with Alternating Current Lightning Arresters.

List No.	Mfrs. No.	Voltage.	Amperes.	List Price.
16310	25401	5000	0 to 25	\$15 00
16311	3416	5000	25 to 100	27 50
16312	32240	7500	0 to 200	32 50
16313	32240	10000	0 to 200	32 50
16314	32240	12500	0 to 200	32 50
16315	32240	15000	0 to 200	32 50
16316	32240	20000	0 to 200	32 50
16317	32240	25000	0 to 200	32 50

ELECTRIC RAILWAY SUPPLIES.

Standard Round Top Hanger.



Standard Size with Malleable Iron or Bronze Shell giving ample protection from blows of the Trolley Wheel. Double Petticoated and suitable for all standard construction.

List No.	Mfrs. No.		Price per 100
15380	123	Round Top Hanger; Jap. Malleable Iron Shell, for 0 or 00 wire, 5⁄8 in. steel stud, weight 35 ounces.....	\$90 00
15381	124	Round Top Hanger; Jap. Malleable Iron Shell, for 000 to 0000 wire 3⁄4 in. steel stud, weight 36 ounces.....	92 50
15382	100	Round Top Hanger, Gal. Malleable Iron Shell, for 0 to 00 wire, 5⁄8 in. steel stud, weight 35 ounces.....	95 00
15383	109	Round Top Hanger, Gal. Malleable Iron Shell, for 000 to 0000 wire, 3⁄4 in. steel stud, weight 36 ounces.....	97 50
15384	108	Round Top Hanger; Bronze Shell, for 0 or 00 wire, 5⁄8 in. steel stud, weight 39 ounces.....	175 00
15385	110	Round Top Hanger; Bronze Shell, for 000 to 0000 wire, 3⁄4 in. steel stud, weight 40 ounces.....	177 50

Extra Heavy Round Top Hanger.

15386	103	Round Top Hanger, Heavy Galvanized Malleable Iron Shell, for 000 to 0000 wire, 3⁄4 in. steel stud, weight 56½ ounces.....	138 00
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High Potential Round Top Hanger.

This Insulator has four Petticoats, giving very large surface insulation and is well protected by the Malleable Iron Shell.

It is built especially for 1500 to 2000 volts for alternating current Trolley service, but will prove equally efficient at much higher voltages and is unequalled for single phase systems.

List No.	Mfrs. No.		Price per 100.
15387	520	High Potential Round Top Hanger, Jap. Malleable Iron body, 3⁄4 in. stud, weight 5 lbs.....	255 00
15388	521	High Potential Round Top Hanger, Gal. Malleable Iron body, 3⁄4 in. stud, weight 5 lbs.....	276 00

ELECTRIC RAILWAY SUPPLIES.

Standard Round Top Bracket Bell.

Admirably adapted for special construction.
For use in Mines or other places when it is necessary to use a bolt through timbers.
Same as Round Top Hanger, but has a hole tapped in top to fit a bolt.



		Japanned Malleable Iron Shell.		Price
List No.	Mfrs. No.		Weight.	per 100.
15389	138	Bell with 5/8 in. Stud, 5/8 in. Hole,	33 ozs.	\$90 00
15390	139	" " 3/4 " " 3/4 " "	34 1/4 "	92 50
Galvanized Malleable Iron Shell.				
15391	113	Bell with 5/8 in. Stud, 5/8 in. Hole,	33 ozs.	95 00
15392	129	" " 3/4 " " 3/4 " "	34 1/4 "	97 50
Bronze Shell.				
15393	114	Bell with 5/8 in. Stud, 5/8 in. Hole,	33 1/4 ozs.	175 00
15394	133	" " 3/4 " " 3/4 " "	36 "	177 50
Medium Round Top Bracket Bell.				
Japanned Malleable Iron Shell.				
15395	414	Bell with 5/8 in. Stud, 5/8 in. Hole,	28 ozs.	75 00
Galvanized Malleable Iron Shell.				
15396	416	Bell with 5/8 in. Stud, 5/8 in. Hole,	28 ozs.	80 00
Bronze Shell.				
15396 1/2	418	Bell with 5/8 in. Stud, 5/8 in. Hole,	28 ozs.	150 00



Barn or Bridge Hanger.

It consists of Malleable Iron Shell, with a forged steel bolt, imbedded in our Moulded Mica Insulation, with Double Petticoat.
The drop of the trolley wire below the beam is 5 inches, one end slotted.

		Japanned Malleable Iron Shell.		Price
List No.	Mfrs. No.		Weight.	per 100.
15397	208	Hanger with 5/8 in. Bolt, weight 43 ozs.....		\$90 00
15398	229	Hanger with 3/4 in. Bolt, weight 47 ozs.....		92 50
Galvanized Malleable Iron Shell.				
15399	228	Hanger with 5/8 in. Bolt, weight 43 ozs.....		95 00
15400	258	Hanger with 3/4 in. Bolt, weight 47 ozs.....		97 50
Medium Round Top Barn or Bridge Hanger.				
Japanned Malleable Iron Shell.				
15401	268	Hanger with 5/8 in. Bolt, weight 37 ozs.....		75 00
Galvanized Malleable Iron Shell.				
15402	269	Hanger with 5/8 in. Bolt, weight 37 ozs.....		80 00



Medium Round Top Mine Hanger.

This arrangement is suitable for attaching the Hanger to timbers running along the sides of the Mines or any other convenient point.

		Japanned Malleable Iron.		Price
List No.	Mfrs. No.		Weight.	per 100.
15403	467	Hanger with 5/8 in. Stud..		\$75 00
Galvanized Malleable Iron.				
15404	468	Hanger with 5/8 in. Stud..		80 00
Bronze.				
15405	469	Hanger with 5/8 in. Stud..		150 00

ELECTRIC RAILWAY SUPPLIES.

Single Giant Pull-Over.



These pull-overs are composed of malleable iron yokes, assembled with our giant insulator, which thoroughly insulates the device. They are also provided with threaded stud bolts and lock washers, which fit all of our standard ears. They are very strong and durable.

List No.	Mfrs. No.		Price per 100.
15406	160	Single Curve Giant Pull-Over; japanned malleable iron yoke, No. 2 giant strain insulator, 5/8 inch bolt; weight, 37 ounces.....	\$100 00
15407	345	Single Curve Giant Pull-Over; galvanized malleable iron yoke, No. 2 giant strain insulator, 5/8 inch bolt; weight 37 ounces.....	105 00
15408	198	Single Curve Giant Pull-Over; japanned malleable iron yoke, No. 2 giant strain insulator, 3/4 inch bolt, weight 38 ounces.....	102 50
15409	199	Single Curve Giant Pull-Over; galvanized malleable iron yoke, No. 2 giant strain insulator, 3/4 inch bolt, weight 38 ounces.....	107 50
15410	177	Single Curve Heavy Giant Pull-Over; japanned malleable iron yoke, No. 1 giant strain insulator, 3/4 inch bolt, weight 65 ounces	155 00
15411	347	Single Curve Heavy Giant Pull-Over; galvanized malleable iron yoke, No. 1 giant strain insulator, 3/4 inch bolt, weight 65 ounces.....	160 00

Double Giant Pull-Over.



List No.	Mfrs. No.		Price per 100
15412	175	Double Curve Giant Pull-Over; japanned malleable iron yoke, two No. 2 giant strain insulators, 5/8 inch bolt, weight 64 ounces.....	\$180 00
15413	355	Double Curve Giant Pull-Over; galvanized malleable iron yoke, two No. 2 giant strain insulators, 5/8 inch bolt, weight 64 ounces.....	187 50
15414	176	Double Curve Giant Pull-Over; japanned malleable iron yoke, two No. 2 giant strain insulators, 3/4 inch bolt, weight 65 ounces.....	182 50
15415	118	Double Curve Giant Pull-Over, galvanized malleable iron yoke, two No. 2 giant strain insulators, 3/4 inch bolt, weight 65 ounces.....	190 00
15416	185	Double Curve Giant Pull-Over; japanned malleable iron yoke, two No. 1 giant strain insulators, 3/4 inch bolt, weight 112 ounces.....	280 00
15417	357	Double Curve Giant Pull-Over; galvanized malleable iron yoke, two No. 1 giant strain insulators, 3/4 inch bolt, weight 112 ounces	285 00

ELECTRIC RAILWAY SUPPLIES.

Double Trolley Suspension Yoke.

For Round Top Hanger.



This arrangement admits of suspending two trolleys over a single track, with the use of only one round top hanger. This makes a very strong, economical construction, and is easily put up, as much of the work can be done on the ground—fastening ears, etc. Distance between centres of bolts of conductors, 6 inches. Split lock washers furnished with bolts.

List No.	Mfrs. No.		Price per 100
15418	196	Straight Line Yoke only ; Japanned Malleable Iron, tapped for $\frac{5}{8}$ inch stud, weight 33 ounces.....	\$60 00
15419	105	Straight Line Yoke only ; Galvanized Malleable Iron, tapped for $\frac{5}{8}$ in. stud, weight 33 ounces.....	65 00
15420	197	Straight Line Yoke only ; Japanned Malleable Iron, tapped for $\frac{3}{4}$ in. stud, weight 33 ounces	65 00
15421	107	Straight Line Yoke only ; Galvanized Malleable Iron, tapped for $\frac{3}{4}$ in. stud, weight $36\frac{1}{2}$ ounces.....	70 00

Double Trolley Suspension Yoke.

For Straight Line Construction.



This is a similar form to No. 105, but adapted for use with two giant strain insulators instead of round top hanger: can be suspended from a pole on each side of the track without additional strain: insulator distance between centers of bolts of conductors, 6 inches. Both wires are in electrical connection with each other through the malleable iron yoke.

List No.	Mfrs. No.		Price per 100
15422	193	Straight Line Yoke only; Japanned Malleable Iron, with two No. 2 giant strain insulators, and two $\frac{5}{8}$ in. bolts, weight 98 ounces.....	\$212 50
15423	115	Straight Line Yoke only; Galvanized Malleable Iron, with two No. 2 giant strain insulators, and two $\frac{5}{8}$ in. bolts, weight 98 ounces.....	225 00
15424	194	Straight Line Yoke only; Japanned Malleable Iron, with two No. 1 giant strain insulators, and two $\frac{3}{4}$ in. bolts, weight 118 ounces.....	292 50
15425	195	Straight Line Yoke only; Galvanized Malleable Iron, with two No. 1 giant insulators, and two $\frac{3}{4}$ in. bolts, weight 118 ounces.....	300 00

ELECTRIC RAILWAY SUPPLIES.



Double Trolley Pull-Over.

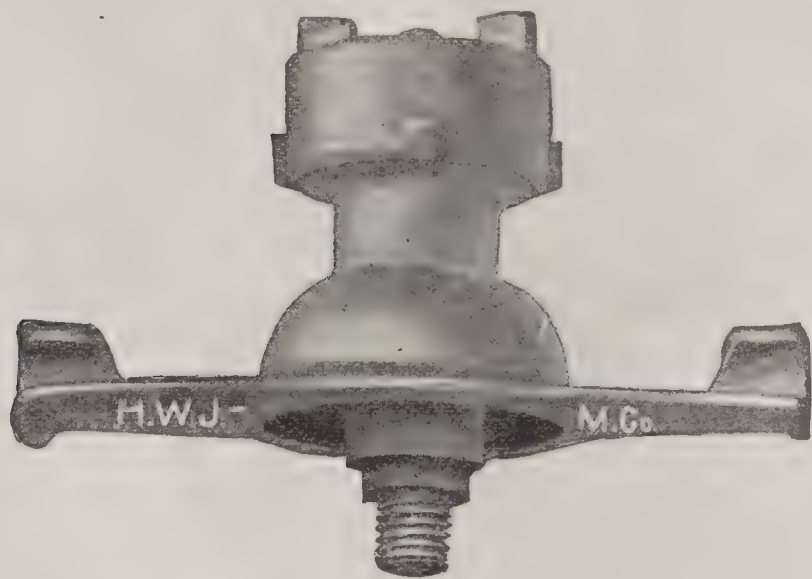
For Single Curve Construction.

The Pull-overs illustrated above, consist of a galvanized malleable iron yoke assembled with our giant strain insulators, and $\frac{5}{8}$ inch stud bolts 6 inches from centre to centre. They are intended for use in curves where double trolley suspension is desired. The giant strain insulates the line from the source of support, and both wires being in electrical connection with each other through the malleable iron yoke.

List No.	Mfrs. No.		Price per 100
15426	186	Single Curve Double Suspension; japanned malleable iron yoke, No. 2 giant strain insulator, with $\frac{5}{8}$ inch stud bolts, weight 66 ounces.....	\$130 00
15427	360	Single Curve Double Suspension; galvanized malleable iron yoke, No. 2 giant strain insulator, with $\frac{5}{8}$ inch stud bolts, weight 66 ounces.....	137 50
15428	187	Single Curve Double Suspension; heavy japanned malleable iron yoke, No. 2 giant strain insulator, with $\frac{3}{4}$ inch stud bolts, weight 67 ounces.....	135 00
15429	159	Single Curve Double Suspension; heavy galvanized malleable iron yoke, No. 2 giant strain insulator, with $\frac{3}{4}$ inch stud bolts, weight 76 ounces.....	142 50
15430	188	Single Curve Double Suspension; heavy japanned malleable iron yoke, No. 1 giant strain insulator, with $\frac{3}{4}$ inch stud bolts, weight 79 ounces.....	170 00
15431	362	Single Curve Double Suspension; heavy galvanized malleable iron yoke, No. 1 giant strain insulator, with $\frac{3}{4}$ inch stud bolts, weight 79 ounces.....	182 00
15432	189	Double Curve Double Suspension; japanned malleable iron yoke, No. 2 giant strain insulators, with $\frac{5}{8}$ inch stud bolts, weight 98 $\frac{1}{2}$ ounces.....	212 50
15433	364	Double Curve Suspension; galvanized malleable iron yoke, No. 2 giant strain insulators, with $\frac{5}{8}$ inch stud bolts, weight 98 $\frac{1}{2}$ ounces.....	225 00
15434	190	Double Curve Double Suspension; japanned malleable iron yoke, No. 2 giant strain insulators, with $\frac{3}{4}$ inch stud bolts, weight 99 $\frac{1}{2}$ ounces.....	217 50
15435	191	Double Curve Double Suspension; galvanized malleable iron yoke, No. 2 giant strain insulators, with $\frac{3}{4}$ inch stud bolts, weight 99 $\frac{1}{2}$ ounces.....	230 00
15436	192	Double Curve Double Suspension; heavy japanned malleable iron yoke, No. 1 giant strain insulators, with $\frac{3}{4}$ inch stud bolts, weight 118 ounces.....	287 50
15437	366	Double Curve Double Suspension; heavy galvanized malleable iron yoke, No. 1 giant strain insulators, with $\frac{3}{4}$ inch stud bolts, weight 118 ounces.....	300 00

ELECTRIC RAILWAY SUPPLIES.

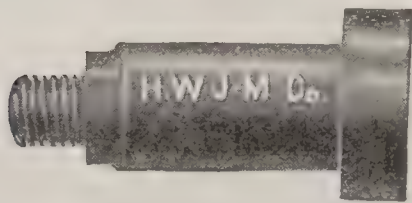
J-P Straight Line Hanger.



This hanger consists of strong malleable iron or bronze casting, with interchangeable Moulded Mica bolt. The cap is provided with lugs, so that a bar can be used to screw it down tight on the head of the bolt. They are light and make an excellent insulator, and can be readily attached to the span wire. Lugs on caps can be bent under so as to prevent cap from working loose.

List No.	Mfrs. No.		Price per 100.
15438	44	J-P Hanger; Japanned Malleable Iron body, complete with No. 59 insulated forged steel bolt, 5/8 in. stud, weight 32 ounces.....	\$95 00
15439	61	J-P Hanger; Galvanized Malleable Iron body, complete with No. 59 insulated forged steel bolt, 5/8 in. stud, weight 34 1/2 ounces.....	100 00
15440	60	J-P Hanger; bronze body, complete with No. 59 insulated forged steel bolt, 5/8 in. stud, weight 32 ounces.....	185 00
15441	41	J-P Hanger; Japanned Malleable Iron body, complete with No. 56 insulated forged steel bolt, 3/4 in. stud, weight 36 1/2 ounces.....	97 50
15442	42	J-P Hanger; Galvanized Malleable Iron body, complete with No. 56 insulated forged steel bolt, 3/4 in. stud, weight 36 1/2 ounces.....	102 50
15443	43	J-P Hanger; bronze body, complete with No. 56 insulated forged steel bolt, 3/4 in. stud, weight 34 ounces.....	187 50

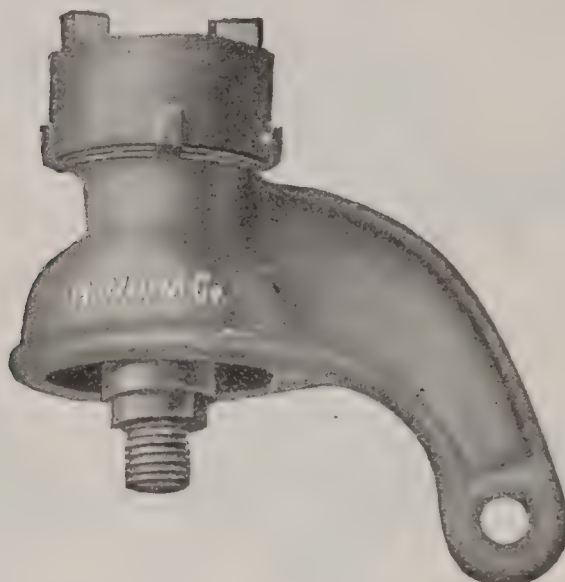
J-P Insulated Bolt.



List No.	Mfrs. No.		Price per 100.
15444	59	J-P Insulated Forged Steel Bolt, 5/8 inch; weight 10 ounces.....	\$45 00
15445	58	J-P Insulated Cast Steel Bolt, 5/8 inch; weight 9 1/2 ounces.....	45 00
15446	56	J-P Insulated Forged Steel Bolt, 3/4 inch; weight 12 ounces.....	47 50
15447	57	J-P Insulated Cast Steel Bolt, 3/4 inch; weight 11 1/2 ounces.....	47 50
15448	80	J-P Brass Feed-in Bolt, 5/8 inch; weight 12 1/2 ounces.....	100 00
15449	94	J-P Brass Feed-in Bolt, 3/4 inch; weight 14 1/2 ounces.....	110 00

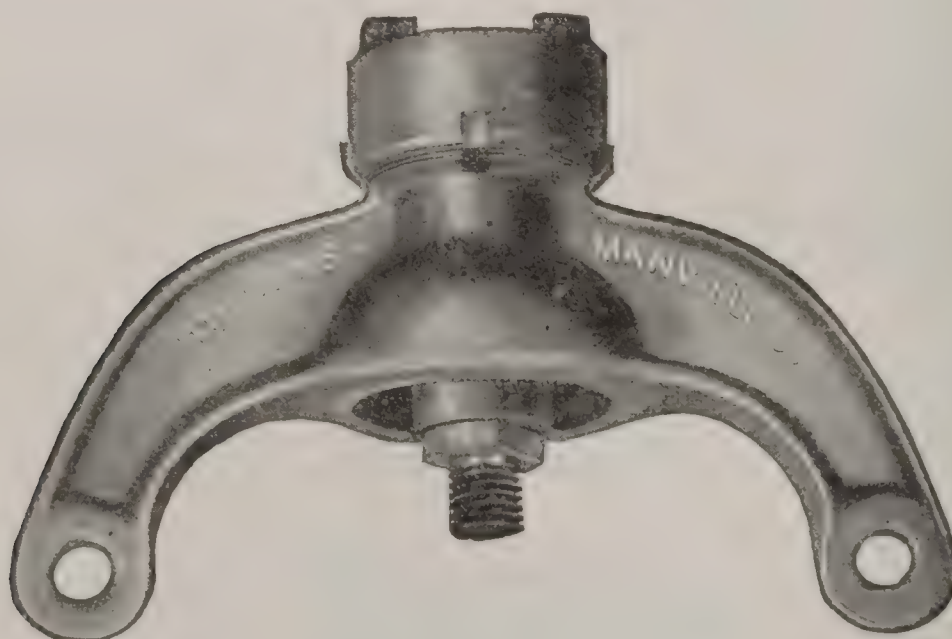
ELECTRIC RAILWAY SUPPLIES.

J-P Single Curve Hanger.



List No.	Mfrs. No.		Price per 100
15450	53	J-P Single Curve Hanger; japanned malleable iron, with No. 59 insulated forged steel bolt, $\frac{5}{8}$ inch stud, weight 36 ounces.....	\$ 95 00
15451	54	J-P Single Curve Hanger; japanned malleable iron, with No. 56 insulated forged steel bolt, $\frac{3}{4}$ inch stud, weight 38 ounces.....	97 50
15452	70	J-P Single Curve Hanger; galvanized malleable iron, with No. 59 insulated forged steel bolt, $\frac{5}{8}$ inch stud, weight 36 ounces.....	100 00
15453	96	J-P Single Curve Hanger; galvanized malleable iron, with No. 56 insulated forged steel bolt, $\frac{3}{4}$ inch stud, weight 38 ounces.....	102 50
15454	63	J-P Single Curve Hanger; bronze with No. 59 insulated forged steel bolt, $\frac{5}{8}$ inch stud, weight 32 ounces.....	195 00
15455	95	J-P Single Curve Hanger; bronze with No. 56 insulated forged steel bolt, with $\frac{3}{4}$ inch stud, weight 34 ounces.....	197 50

J-P Double Curve Hanger.



List No.	Mfrs. No.		Price per 100
15456	45	J-P Double Curve Hanger; japanned malleable iron, with No. 59 insulated forged steel bolt, $\frac{5}{8}$ inch stud, weight 44 ounces.....	105 00
15457	46	J-P Double Curve Hanger; japanned malleable iron, with No. 56 insulated forged steel bolt, $\frac{3}{4}$ inch stud, weight 46 ounces.....	107 50
15458	71	J-P Double Curve Hanger; galvanized malleable iron, with No. 59 insulated forged steel bolt, $\frac{5}{8}$ inch stud, weight 44 ounces.....	112 50
15459	127	J-P Double Curve Hanger; galvanized malleable iron, with No. 56 insulated forged steel bolt, $\frac{3}{4}$ inch stud, weight 46 ounces.....	115 00
15460	64	J-P Double Curve Hanger; bronze with No. 59 insulated forged steel bolt, $\frac{5}{8}$ inch stud, weight 46 ounces.....	220 00
15461	126	J-P Double Curve Hanger; bronze with No. 56 insulated forged steel bolt, $\frac{3}{4}$ inch stud, weight 46 ounces.....	222 50

ELECTRIC RAILWAY SUPPLIES.



J-P Barn or Bridge Hanger.

This hanger is the same as the preceding J-P types, but arranged with the flat cap suitable for bolting to the timbers of the car barn or bridge. The drop of the trolley wire below the beam is 5 inches. Furnished one end open.

List No.	Mfrs. No.		Price per 100.
15462	40	J-P Barn or Bridge Hanger; Japanned Malleable Iron shell, complete with No. 59 insulated forged steel bolt, $\frac{5}{8}$ in. stud, weight $39\frac{1}{2}$ ounces.....	\$100 00
15463	49	J-P Barn or Bridge Hanger; Japanned Malleable Iron shell, complete with No. 56 insulated forged steel bolt, $\frac{3}{4}$ in. stud, weight $41\frac{1}{2}$ ounces.....	102 50
15464	93	J-P Barn or Bridge Hanger; Galvanized Malleable Iron shell, complete with No. 59 insulated forged steel bolt, $\frac{5}{8}$ in. stud, weight $39\frac{1}{2}$ ounces.....	105 00
15465	98	J-P Barn or Bridge Hanger; Galvanized Malleable Iron shell, complete with No. 56 insulated forged steel bolt, $\frac{3}{4}$ in. stud, weight $41\frac{1}{2}$ ounces... ..	107 50
15466	65	J-P Barn or Bridge Hanger; bronze shell, complete with No. 59 insulated forged steel bolt, $\frac{5}{8}$ in stud, weight 39 ounces.....	190 00
15467	97	J-P Barn or Bridge Hanger; bronze shell, complete with No. 56 insulated forged steel bolt, $\frac{3}{4}$ in. stud, weight 41 ounces.....	192 50

J-P Mine Hanger.

This hanger is designed so that the cap will fasten on the upper side of its board support, the arrangement thus taking up the least possible space. Drop of the trolley wire below about $2\frac{3}{4}$ inches.

List No.	Mfrs. No.		Price per 100.
15468	47	J-P Mine Hanger; Japanned Malleable Iron shell, complete with No. 59 insulated forged steel bolt, $\frac{5}{8}$ inch stud, weight $34\frac{1}{2}$ ounces....	\$100 00
15469	48	J-P Mine Hanger; Japanned Malleable Iron shell, complete with No. 56 insulated forged steel bolt, $\frac{3}{4}$ inch stud, weight $36\frac{1}{2}$ ounces	102 50
15470	77	J-P Mine Hanger; Galvanized Malleable Iron shell, complete with No. 59 insulated forged steel bolt, $\frac{5}{8}$ inch stud, weight $34\frac{1}{2}$ ounces.....	105 00
15471	116	J-P Mine Hanger; Galvanized Malleable Iron shell, complete with No. 56 insulated forged steel bolt, $\frac{3}{4}$ inch stud, weight $36\frac{1}{2}$ ounces	107 50

Socket Barn Hanger.

Consists of a cast iron socket for attachment to its support by lag screws, and an insulated bolt, prevented from turning by its frictional contact against the support caused by the tightening of the screws. Distance of trolley wire from support with J-P bolt, 5 inches; with H-W-J bolt, $4\frac{1}{2}$ inches.

List No.	Mfrs. No.		Price per 100.
15472	91	Socket Barn Hanger; complete with No. 59 J-P insulated forged steel bolt, Japanned, $\frac{5}{8}$ inch stud, weight 31 ounces.....	\$75 00
15473	148	Socket Barn Hanger; complete with No. 59 J-P insulated forged steel bolt, galvanized, $\frac{5}{8}$ inch stud, weight 31 ounces.....	80 00
15474	117	Socket Barn Hanger; complete with No. 56 J-P insulated forged steel bolt, Japanned, $\frac{3}{4}$ inch stud, weight 32 ounces.....	77 50
15475	149	Socket Barn Hanger; complete with No. 56 J-P insulated forged steel bolt, galvanized, $\frac{3}{4}$ inch stud, weight 32 ounces.....	82 50
15476	92	Socket Barn Hanger; complete with No. 171 H-W-J insulated forged steel bolt, Japanned, $\frac{5}{8}$ inch stud, weight $29\frac{1}{2}$ ounces.....	75 00
15477	150	Socket Barn Hanger; complete with No. 171 H-W-J insulated forged steel bolt, galvanized, $\frac{5}{8}$ inch stud, weight $29\frac{1}{2}$ ounces.....	80 00

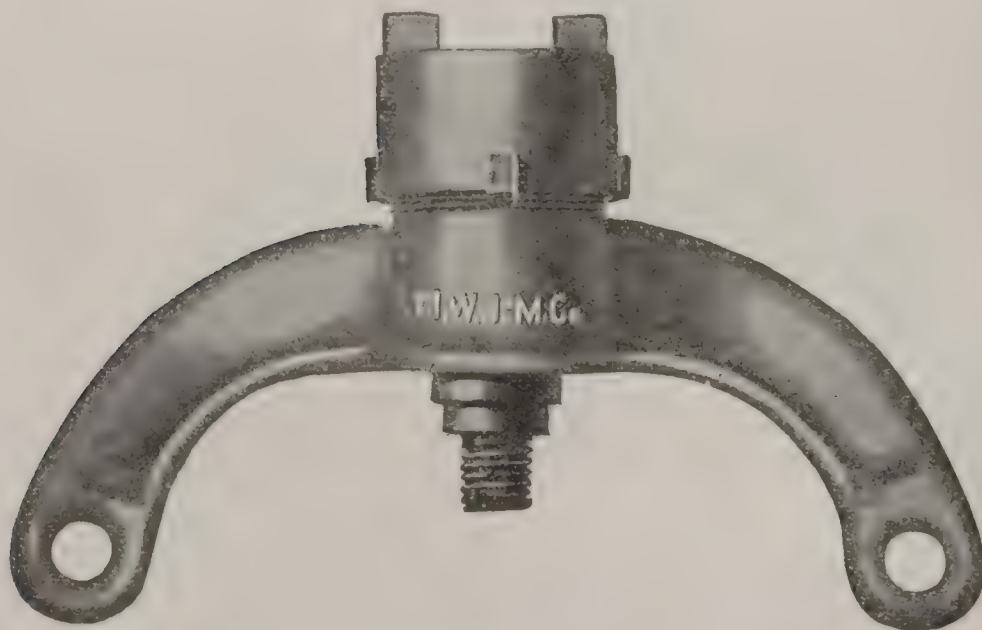
ELECTRIC RAILWAY SUPPLIES.

H-W-J Single Curve Hanger.



List No.	Mfrs. No.		Price per 100
15478	157	H-W-J Single Curve Hanger; japanned malleable iron shell, complete with No. 171 insulated forged steel bolt, $\frac{5}{8}$ inch stud, weight 33 ounces.....	\$ 95 00
15479	152	H-W-J Single Curve Hanger; galvanized malleable iron shell, complete with No. 171 insulated forged steel bolt, $\frac{5}{8}$ inch stud, weight 33 ounces.....	100 00

H-W-J Double Curve Hanger.



List No.	Mfrs. No.		Price per 100
15480	167	H-W-J Double Curve Hanger; japanned malleable iron shell, complete with No. 171 insulated forged steel bolt, $\frac{5}{8}$ inch stud, weight 36 ounces.....	105 00
15481	162	H-W-J Double Curve Hanger; galvanized malleable iron shell, complete with No. 171 insulated forged steel bolt, $\frac{5}{8}$ inch stud, weight 36 ounces.....	112 50

ELECTRIC RAILWAY SUPPLIES.

Cap and Cone Straight Line Hanger.



List No.	Mfrs. No.		Price per 100
15482	209	Cap and Cone Moulded Mica Straight Line Hanger; $\frac{5}{8}$ inch stud, complete with japanned malleable iron yoke, weight $32\frac{1}{2}$ ounces.....	\$ 67 50
15483	264	Cap and Cone Moulded Mica Straight Line Hanger; $\frac{5}{8}$ inch stud, complete with galvanized malleable iron yoke, weight $32\frac{1}{2}$ ounces.....	73 33
15484	230	Cap and Cone Moulded Mica Straight Line Hanger; $\frac{3}{4}$ inch stud, complete with japanned malleable iron yoke, weight $36\frac{1}{2}$ ounces.....	70 00
15485	231	Cap and Cone Moulded Mica Straight Line Hanger; $\frac{3}{4}$ inch stud, complete with galvanized malleable iron yoke, weight $36\frac{1}{2}$ ounces.....	75 83
15486	213	Straight Line Cap and Cone Hanger Yoke only; japanned malleable iron, weight $16\frac{1}{2}$ ounces	17 50
15487	317	Straight Line Cap and Cone Hanger Yoke only; galvanized malleable iron, weight $16\frac{1}{2}$ ounces	23 33

Cap and Cone Single Curve Hanger.



List No.	Mfrs. No.		Price per 100
15488	210	Cap and Cone Moulded Mica Single Curve Hanger; $\frac{5}{8}$ inch stud, complete with japanned malleable iron yoke, weight 34 ounces.....	\$ 73 50
15489	265	Cap and Cone Moulded Mica Single Curve Hanger; $\frac{5}{8}$ inch stud, complete with galvanized malleable iron yoke, weight 34 ounces.....	81 33
15490	232	Cap and Cone Moulded Mica Single Curve Hanger; $\frac{3}{4}$ inch stud, complete with japanned malleable iron yoke, weight 38 ounces.....	76 00
15491	233	Cap and Cone Moulded Mica Single Curve Hanger; $\frac{3}{4}$ inch stud, complete with galvanized malleable iron yoke, weight 38 ounces.....	83 83
15492	214	Single Curve Cap and Cone Hanger Yoke only; japanned malleable iron, weight 18 ounces.....	23 50
15493	318	Single Curve Cap and Cone Hanger Yoke only; galvanized malleable iron, weight 18 ounces	31 33

ELECTRIC RAILWAY SUPPLIES.

Cap and Cone Double Curve Hanger.



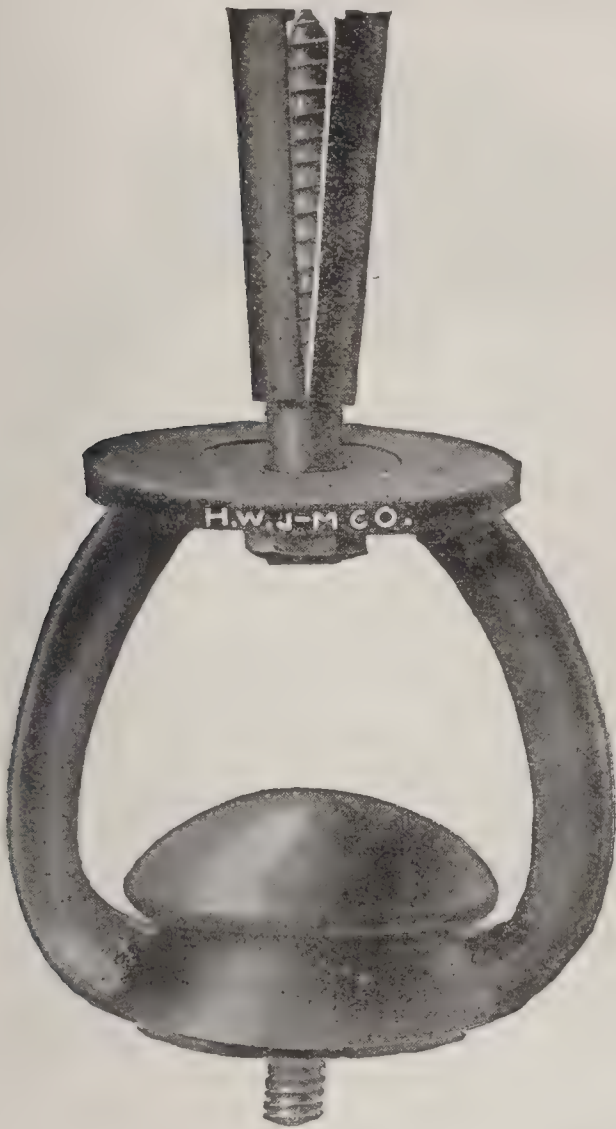
List No.	Mfrs. No.		Price Per 100
15494	211	Cap and Cone Moulded Mica Double Curve Hanger; $\frac{5}{8}$ inch stud, japanned malleable iron yoke; weight 48 ounces	\$82 50
15495	226	Cap and Cone Moulded Mica Double Curve Hanger; $\frac{5}{8}$ inch stud, galvanized malleable iron yoke; weight 48 ounces	93 33
15496	234	Cap and Cone Moulded Mica Double Curve Hanger; $\frac{3}{4}$ inch stud, japanned malleable iron yoke; weight 52 ounces	85 00
15497	235	Cap and Cone Moulded Mica Double Curve Hanger; $\frac{3}{4}$ inch stud, galvanized malleable iron yoke; weight 52 ounces	95 83
15498	215	Double Curve Cap and Cone Hanger Yoke only; japanned malleable iron; weight 32 ounces.....	32 50
15499	263	Double Curve and Cone Hanger Yoke only; galvanized malleable iron; weight 32 ounces.....	43 33

Cap and Cone Strain Hanger.



List No.	Mfrs. No.		Price Per 100.
15500	219	Cap and Cone Moulded Mica Strain Hanger; $\frac{5}{8}$ inch stud, japanned malleable iron yoke; weight 41 ounces.....	\$74 00
15501	227	Cap and Cone Moulded Mica Strain Hanger; $\frac{5}{8}$ inch stud, galvanized malleable iron yoke; weight 45 ounces.....	82 00
15502	236	Cap and Cone Moulded Mica Strain Hanger; $\frac{3}{4}$ inch stud, japanned malleable iron yoke; weight 45 ounces.....	76 50
15503	237	Cap and Cone Moulded Mica Strain Hanger; $\frac{3}{4}$ inch stud, galvanized malleable iron yoke; weight 45 ounces.....	84 50
15504	218	Cap and Cone Strain Hanger Yoke only; japanned malleable iron yoke; weight 25 ounces.....	24 00
15505	319	Cap and Cone Strain Hanger Yoke only; galvanized malleable iron; weight 25 ounces	32 00

ELECTRIC RAILWAY SUPPLIES.



Cap and Cone Mine Hanger.

This combination is suitable for mine work, and can be used where there are timbers, or fastened direct into stone work. By simply tightening the nut of the expansion bolt, the hanger is firmly fastened into its place. Consists of malleable iron casting, expansion bolt with cap and cone complete.

List No.	Mfrs. No.		Price per 100
15506	261	Cap and Cone Mine Hanger; japanned malleable iron, complete with expansion bolt, 5/8x10 inches, hexagon nut, cap and cone, 5/8 inch stud, weight 75 ounces	\$134 00
15507	262	Japanned Malleable Iron Yoke only; without expansion bolt or cap and cone, weight 49 ounces.....	50 00

Cap and Cone Barn, or Bridge Hanger.



This hanger consists of malleable iron yoke and moulded mica cap and cone; is adapted for car barns, bridges or mine construction. Drop of trolley wire below beam 4½ inches.

List No.	Mfrs. No.		Price per 100
15508	220	Cap and Cone Barn Hanger; japanned malleable iron yoke, complete with No. 204 cap and cone, 5/8 inch stud, weight 57 ounces	\$ 91 00
15509	259	Cap and Cone Barn Hanger; galvanized malleable iron yoke, complete with No. 204 cap and cone, 5/8 inch stud, weight 57 ounces.	104 66
15510	238	Cap and Cone Barn Hanger; japanned malleable iron yoke, complete with No. 207 cap and cone, 3/4 inch stud, weight 61 ounces	93 50
15511	260	Cap and Cone Barn Hanger; galvanized malleable iron yoke, complete with No. 207 cap and cone, 3/4 inch stud, weight 61 ounces	107 16
15512	217	Cap and Cone Barn Hanger; japanned malleable iron yoke only, weight 41 ounces	41 00
15513	338	Cap and Cone Barn Hanger; galvanized malleable iron yoke only, weight 41 ounces.....	54 66

ELECTRIC RAILWAY SUPPLIES.

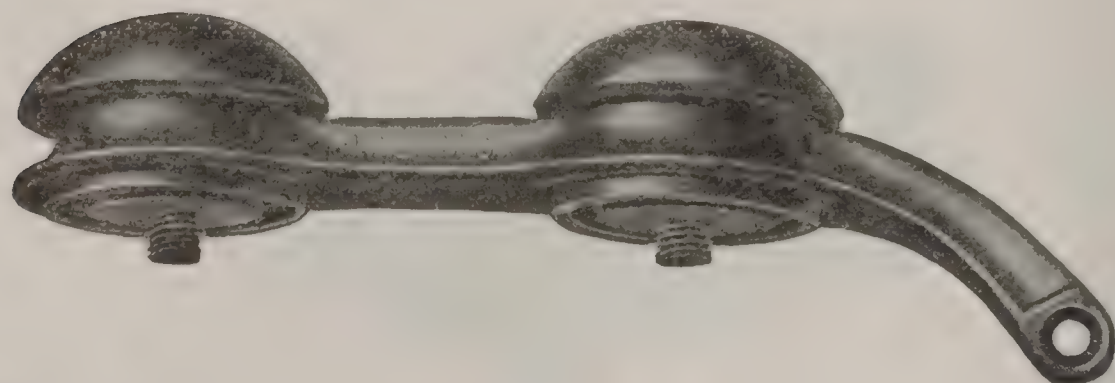
Cap and Cone Twin Straight Line Hanger.



Cap and Cone Twin Hangers are simply a modification of our regular line of this description, and are admirably adapted for overhead construction where it is desired to run two parallel trolley wires over a single track, obviating the necessity of frogs and switches at turnouts. Distance between centres of studs, 6 inches.

List No.	Mfrs. No.		Price per 100.
15514	240	Cap and Cone Twin Straight Line Hanger; Japanned malleable iron yoke, complete with two No. 204 caps and cones, 5/8 in. studs, weight 67 1/2 ounces	\$141 00
15515	246	Cap and Cone Twin Straight Line Hanger: galvanized malleable iron yoke, complete with two No. 204 caps and cones, 5/8 in. studs, weight 67 1/2 ounces	154 66
15516	247	Cap and Cone Twin Straight Line Hanger; Japanned malleable iron yoke, complete with two No. 207 caps and cones, 3/4 in. studs, weight 71 ounces...	146 00
15517	248	Cap and Cone Twin Straight Line Hanger; galvanized malleable iron yoke, complete with two No. 207 caps and cones, 3/4 in. studs, weight 71 ounces...	159 66
15518	241	Cap and Cone Twin Straight Line Japanned malleable iron yoke only, weight 35 1/2 ounces.....	41 00
15519	312	Cap and Cone Twin Straight Line Galvanized malleable iron yoke only, weight 35 1/2 ounces.....	54 66

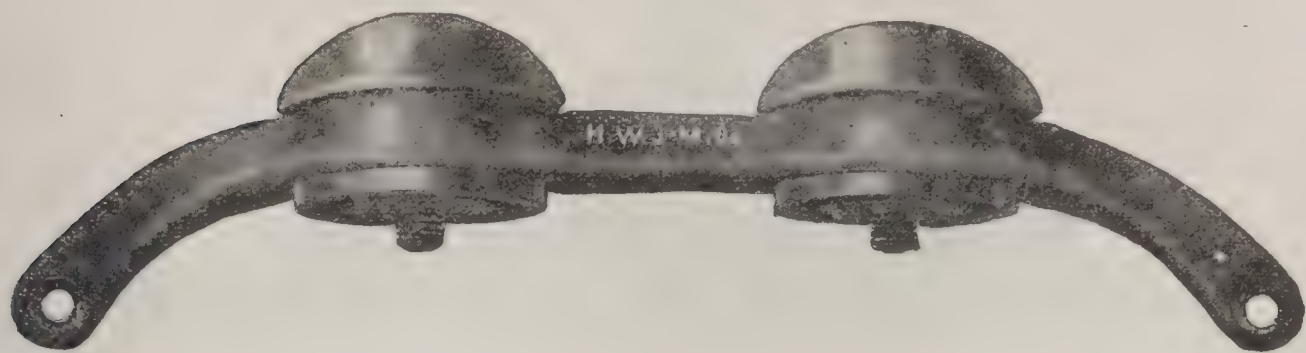
Cap and Cone Twin Double Curve Hanger.



List No.	Mfrs. No.		Price per 100.
15520	242	Cap and Cone Twin Single Curve Hanger; Japanned malleable iron yoke, complete with two No. 204 caps and cones, 5/8 in. studs, weight 71 1/2 ounces	\$150 00
15521	249	Cap and Cone Twin Single Curve Hanger; galvanized malleable iron yoke, complete with two No. 204 caps and cones, 5/8 in. studs, weight 79 1/2 ounces	166 66
15522	250	Cap and Cone Twin Single Curve Hanger; Japanned malleable iron yoke, complete with two No. 207 caps and cones, 3/4 in. studs, weight 79 1/2 ounces	155 00
15523	251	Cap and Cone Twin Single Curve Hanger; galvanized malleable iron yoke, complete with two No. 207 caps and cones, 3/4 in. studs, weight 79 1/2 ounces	171 66
15524	243	Cap and Cone Twin Single Curve Japanned malleable iron yoke only, weight 39 1/2 ounces.....	50 00
15525	313	Cap and Cone Twin Single Curve Galvanized malleable iron yoke only, weight 39 1/2 ounces.....	66 66

ELECTRIC RAILWAY SUPPLIES.

Cap and Cone Twin Double Curve Hanger.



List No.	Mfrs. No.		Price Per 100.
15526	244	Cap and Cone Twin Double Curve Hanger; japanned malleable iron yoke, complete with two No. 204 caps and cones; 5/8 inch studs; weight 87 ounces,	\$160 00
15527	252	Cap and Cone Twin Double Curve Hanger; galvanized malleable iron yoke, complete with two No. 204 caps and cones; 5/8 inch studs; weight 87 ounces,	180 00
15528	253	Cap and Cone Twin Double Curve Hanger; japanned malleable iron yoke, complete with two No. 207 caps and cones; 3/4 inch studs; weight 95 ounces,	165 00
15529	254	Cap and Cone Twin Double Curve Hanger; galvanized malleable iron yoke, complete with two No. 207 caps and cones; 3/4 inch studs; weight 95 ounces,	185 00
15530	245	Cap and Cone Twin Double Curve Japanned Malleable Iron Yoke only; weight 55 ounces.....	60 00
15531	314	Cap and Cone Twin Double Curve Galvanized Malleable Iron Yoke only; weight 55 ounces.....	80 00

Guard Wire Insulators.



Moulded Insulators and Galvanized Malleable Iron Castings.

List No.	Mfrs. No.		Price Per 100.
15532	753	Straight Line Insulator; moulded; weight 4 1/2 ounces.....	\$30 00
15533	751	Single Curve Insulator; moulded; weight 3 1/2 ounces.....	30 00
15534	752	Double Curve Insulator; moulded; weight 4 3/4 ounces.....	30 00

ELECTRIC RAILWAY SUPPLIES.

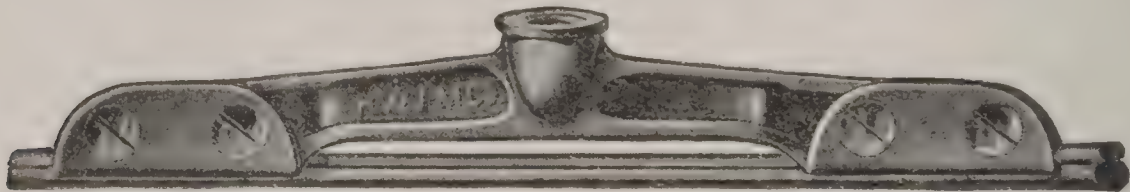
Mechanical Screw Clip.—For Grooved Wire.



This clip is made of malleable iron, and is suitable for the different types of grooved and figure 8 wire from 0 to 0000. The wire is held in position by tightening the screws. These clips are recommended for mine work, and are made with long hub, to be used with our Standard Round Top Hangers.

List No.	Mfrs. No.		Price per 100
15535	790	Straight Line Clip; 5 inches long, 3 screw, malleable iron, japanned, weight 10 oz.	\$ 30 00
15536	795	Straight Line Clip; 5 inches long; 3 screw, malleable iron, gal., weight 10 oz.	32 50
15537	791	Straight Line Clip; 7 inches long, 4 screw, malleable iron, japanned, weight 14 oz.	35 00
15538	796	Straight Line Clip; 7 inches long, 4 screw, malleable iron, gal., weight 14 oz.,	37 50
15539	798	Straight Line Clip; 5 inches long, 3 screw, bronze, weight 10 ounces.....	62 50
15540	799	Straight Line Clip; 7 inches long, 4 screw, bronze, weight 14 ounces.....	85 00

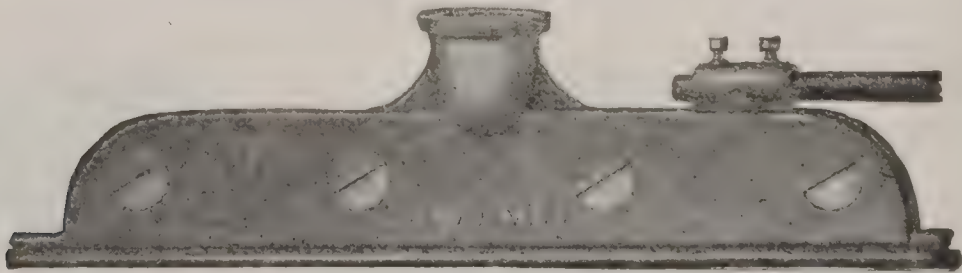
Double Clamp Screw Clip.—For Grooved Wire.



For supporting trolley wires on curves. Are extra heavy.

List No.	Mfrs. No.		Price per 100
15541	792	Mechanical Curve Clip; malleable iron, japanned, 10 in. long, weight 20½ oz..	\$ 42 50
15542	797	Mechanical Curve Clip; malleable iron, galvanized, 10 in. long, weight 20½ oz..	45 00

Mechanical Feed-in Screw Clip.—For Grooved Wire.



These clips are made only in bronze.

List No.	Mfrs. No.		Price per 100
15543	793	Mechanical Feed-in Clip; bronze, 5 inches long, weight 18½ ounces.....	\$ 75 00
15544	789	Mechanical Feed-in Clip; bronze, 8 inches long, weight 27 ounces.....	105 00

Mechanical Strain Screw Clip.—For Grooved Wire.



List No.	Mfrs. No.		Price per 100
15545	794	Mechanical Strain Clip; bronze, 10 inches long, weight 26 ounces.....	\$125 00

These clips are made only in bronze.

ELECTRIC RAILWAY SUPPLIES.

Soldered Ear for Round Top Hangers and Giant Pull-Overs.



Straight Line Ear with Long Hub, to be used with Round Top Hangers.

List No.	Mfrs. No.		Price Per 100.
15546	615	Straight Line Ear ; 9 inches long, O. Wire, tapped $\frac{5}{8}$ inch ; weight 11 ounces .	\$43 70
15547	616	Straight Line Ear ; 9 inches long, OO. wire, tapped $\frac{5}{8}$ inch ; weight 13 ounces,	51 65
15548	620	Pull-Over Ear ; 9 inches long, O. wire, tapped $\frac{5}{8}$ inch ; weight 11 ounces.....	43 70
15549	623	Pull-Over Ear ; 9 inches long, OO. wire, tapped $\frac{5}{8}$ inch ; weight 13 ounces.....	51 65
15550	617	Straight Line Ear ; 12 inches long, O. wire, tapped $\frac{5}{8}$ inch ; weight 13 ounces..	52 50
15551	618	Straight Line Ear ; 12 inches long, OO. wire, tapped $\frac{5}{8}$ inch ; weight 14 ounces,	55 65

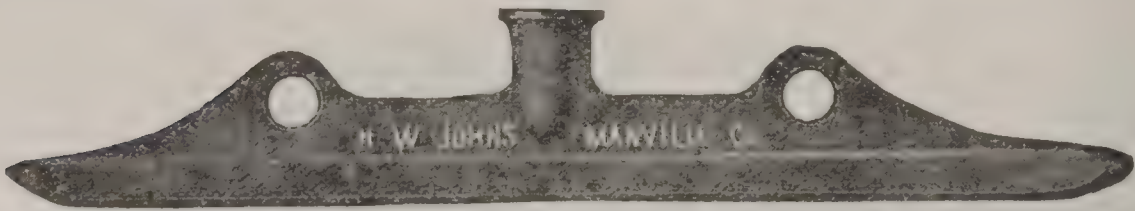
Soldered Ear for Round Top Hangers.

Straight Line Ear with Long Hub, to be used with Round Top Hangers.

List No.	Mfrs. No.		Price Per 100
15552	625	Straight Line Ear ; 15 inches long, O. wire, tapped $\frac{5}{8}$ inch ; weight 15 ounces..	\$59 65
15553	626	Straight Line Ear ; 15 inches long, OO. wire, tapped $\frac{5}{8}$ inch ; weight 16 ounces,	63 60
15554	627	Straight Line Ear ; 15 inches long. OOOO. wire, tapped $\frac{3}{4}$ inch ; weight 19 ounces	77 00
15555	630	Pull-Over Ear ; 15 inches long, O. wire, tapped $\frac{5}{8}$ inch ; weight 18 ounces	71 55
15556	632	Pull-Over Ear ; 15 inches long, OO. wire, tapped $\frac{5}{8}$ inch ; weight 18 ounces....	71 55
15557	634	Pull-Over Ear ; 15 inches long, OOOO. wire, tapped $\frac{3}{4}$ inch ; weight 21 ounces,	83 45

ELECTRIC RAILWAY SUPPLIES.

Soldered Strain Ear for Round Top Hangers.



List No.	Mfrs. No.		Price Per 100.
15558	652	Strain Ear; 15 inches long, O. wire, tapped $\frac{5}{8}$ inch; weight 23 ounces.	\$91 38
15559	655	Strain Ear; 15 inches long, OO. wire, tapped $\frac{5}{8}$ inch; weight 23 ounces.....	91 38
15560	657	Strain Ear; 15 inches long, OOOO. wire, tapped $\frac{3}{4}$ inch; weight 28 ounces. ...	111 30

Soldered Feed-In Ear for Round Top Hangers.



List No.	Mfrs. No.		Price Per 100.
15561	665	Feed-In Ear; 15 inches long, O. wire, tapped $\frac{5}{8}$ inch; weight 20 ounces.....	\$88 50
15562	668	Feed In Ear; 15 inches long, OO. wire, tapped $\frac{5}{8}$ inch; weight 21 ounces.....	88 50
15562½	669	Feed-in Ear; 15 inches long, OOOO. wire, tapped $\frac{3}{4}$ inch, weight 25 ounces ..	108 35

Soldered Splicing Ear.

This ear is very strong and made to stand severe strains. In actual tests our OO. splicing ears have withstood 8,000 pounds before breaking. The wire is brought in and bent over, and then thoroughly soldered, so that the joint is stronger than the wire itself.

List No.	Mfrs. No.		Price Per 100.
15563	682	Splicing Ear; 15 inches long, O. wire, tapped $\frac{5}{8}$ inch; weight 27 ounces.....	\$107 30
15564	685	Splicing Ear; 15 inches long, OO. wire, tapped $\frac{5}{8}$ inch; weight 27 ounces.....	107 30
15565	686	Splicing Ear; 15 inches long, OOOO. wire, tapped $\frac{3}{4}$ inch; weight 32 ounces...	127 20

ELECTRIC RAILWAY SUPPLIES.

Soldered Ear.

For J-P and H-W-J Hangers.



List No.	Mfrs. No.		Price per 100
15566	611	Straight Line or Curved Ear; 9 inches long, O. wire, tapped $\frac{5}{8}$ inch, weight 9 ounces.	\$ 37 00
15567	612	Straight Line or Curved Ear; 9 inches long, OO. wire, tapped $\frac{5}{8}$ inch, weight 10 ounces.	37 00
15568	621	Straight Line or Curved Ear; 15 inches long, O. wire, tapped $\frac{5}{8}$ inch, weight 13 ounces.	55 00
15569	622	Straight Line or Curved Ear; 15 inches long, OO. wire, tapped $\frac{5}{8}$ inch, weight 14 ounces.	55 00
15570	624	Straight Line or Curved Ear; 15 inches long, OOOO. wire, tapped $\frac{3}{4}$ inch, weight 17 ounces.	77 00

Soldered Strain Ear.

For J-P and H-W-J Hangers.



List No.	Mfrs. No.		Price per 100
15571	653	Strain Ear; 15 inches long, O. wire, tapped $\frac{5}{8}$ inch, weight 16 ounces.	\$ 85 00
15572	654	Strain Ear; 15 inches long, OO. wire, tapped $\frac{5}{8}$ inch, weight 16 ounces.	85 00
15573	656	Strain Ear; 15 inches long, OOOO. wire, tapped $\frac{3}{4}$ inch, weight 21 ounces.	110 00

Soldered Feed-In Ear.

For J-P and H-W-J Hangers.

List No.	Mfrs. No.		Price per 100
15574	666	Feed-in Ear; 15 inches long, O. wire, tapped $\frac{5}{8}$ inch, weight 15 ounces.	\$ 77 50
15575	667	Feed-in Ear; 15 inches long, OO. wire, tapped $\frac{5}{8}$ inch, weight 15 ounces.	77 50
15576	673	Feed-in Ear; 15 inches long, OOOO. wire, tapped $\frac{3}{4}$ inch, weight 20 ounces.	105 00

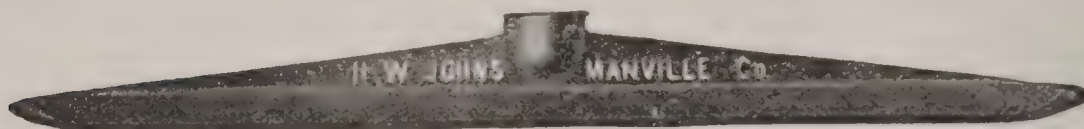
ELECTRIC RAILWAY SUPPLIES.

Soldered Splicing Ear for J-P and H-W-J Hangers.



List No.	Mfrs. No.		Price Per 100.
15577	683	Splicing Ear; 15 inches long, O. wire, tapped $\frac{5}{8}$ inch; weight 24 ounces.....	\$100 00
15578	684	Splicing Ear; 15 inches long, OO. wire, tapped $\frac{5}{8}$ inch; weight 24 ounces.....	100 00
15579	697	Splicing Ear; 15 inches long, OOOO. wire, tapped $\frac{3}{4}$ inch; weight 30 ounces..	125 00

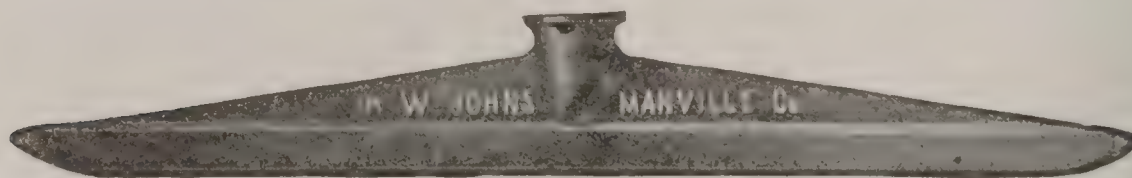
Clinch Ears for J-P and H-W-J Hangers.



Deep Groove for Clinching Over Wire Without Solder.

List No.	Mfrs. No.		Price Per 100.
15580	690	Clinch Ear; 9 inches long, O. wire, tapped $\frac{5}{8}$ inch; weight 9 ounces.....	\$37 00
15581	691	Clinch Ear; 9 inches long, OO. wire, tapped $\frac{5}{8}$ inch; weight 10 ounces.....	37 00
15581½	694	Clinch Ear; 15 inches long, O. wire, tapped $\frac{5}{8}$ inch, weight 13 ounces....	55 00
15582	695	Clinch Ear; 15 inches long, OO. wire, tapped $\frac{5}{8}$ inch; weight 14 ounces.....	55 00
15583	696	Clinch Ear; 15 inches long, OOOO. wire, tapped $\frac{3}{4}$ inch; weight 17 ounces....	77 00

Soldered Straight Line Ear for Cap and Cone Hangers.



List No.	Mfrs. No.		Price Per 100
15584	640	Straight Line Ear; 9 inches long, O. wire, tapped $\frac{5}{8}$ inch; weight 9 ounces....	\$37 00
15585	641	Straight Line Ear; 9 inches long, OO. wire, tapped $\frac{5}{8}$ inch; weight 9 ounces..	37 00
15586	642	Straight Line Ear; 15 inches long, O. wire, tapped $\frac{5}{8}$ inch; weight 15 ounces..	55 00
15587	643	Straight Line Ear; 15 inches long, OO. wire, tapped $\frac{5}{8}$ inch; weight 15 ounces.	55 00
15588	670	Straight Line Ear; 15 inches long, OOOO. wire, tapped $\frac{3}{4}$ inch; weight 20 ounces.....	77 00

ELECTRIC RAILWAY SUPPLIES.

Soldered Strain Ear.

For Cap and Cone Hangers.



List No.	Mfrs. No.		Price per 100
15589	644	Strain Ear; 15 inches long, 0 wire, tapped $\frac{5}{8}$ inch, weight 21 ounces.....	\$ 85 00
15590	645	Strain Ear; 15 inches long, 00 wire, tapped $\frac{5}{8}$ inch, weight 21 ounces.....	85 00
15591	671	Strain Ear; 15 inches long, 0000 wire, tapped $\frac{3}{4}$ inch, weight 26 ounces.....	110 00

Soldered Feed-in Ear.

For Cap and Cone Hangers.

List No.	Mfrs. No.		Price per 100
15592	646	Feed-in Ear; 15 inches long, 0 wire, tapped $\frac{5}{8}$ inch, weight 19 ounces.....	\$ 77 50
15593	647	Feed-in Ear; 15 inches long, 00 wire, tapped $\frac{5}{8}$ inch, weight 19 ounces.....	77 50
15594	672	Feed-in Ear; 15 inches long, 0000 wire, tapped $\frac{3}{4}$ inch, weight 23 ounces.....	105 00

Soldered Splicing Ear.

For Cap and Cone Hangers.

List No.	Mfrs. No.		Price per 100
15595	648	Splicing Ear; 15 inches long; 0 wire, tapped $\frac{5}{8}$ inch, weight 24 ounces.....	\$100 00
15596	649	Splicing Ear; 15 inches long, 00 wire, tapped $\frac{5}{8}$ inch, weight 24 ounces.....	100 00
15597	650	Splicing Ear; 15 inches long, 0000 wire, tapped $\frac{3}{4}$ inch, weight 30 ounces.....	125 00

Soldered Straight Line Ear.

For Round Top Hangers.



This ear is made in any desired length, preferably about 15 inches long, with a smooth finished channel, on each side of which is a downward projecting lip, having on the inside a small rib, which fits exactly into the groove of the trolley wire, the latter is sprung into the channel, and the sides of the ear are then crimped together so that the ribs on the inside closely fit into the groove of the trolley wire. This clamping or crimping would, in many instances, be sufficient to hold the wire of itself, but in order to make the ear doubly secure, provision is made for soldering the clamped wire throughout the entire length of the ear.

On the upper side of the ear, on each side of the centrally supporting hub, is a hole which communicates with the channel around the trolley wire; solder is poured into each of these holes, thus entirely filling the interstices between the wire and the ear.

List No.	Mfrs. No.		Price per 100
15598	571	Straight Line Grooved Wire Ear, 15 in. long, 00 wire, tapped $\frac{5}{8}$ in., wgt. 18 oz..	\$ 71 55
15599	573	Straight Line Grooved Wire Ear; 15 in. long, 000 wire, tapped $\frac{3}{4}$ in., wgt. 18 oz..	77 00
15600	575	Straight Line Grooved Wire Ear; 15 in, long 0000 wire, tapped $\frac{3}{4}$ in., wgt. 20 oz.,	79 48

Soldered Curve Ear.

For Grooved Wire.

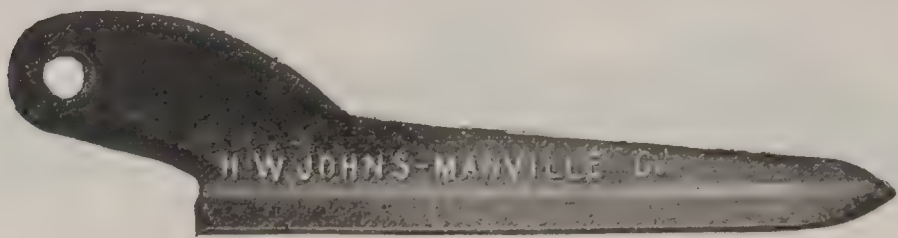


These Patented Grooved Wire Ears are unquestionably the best and most scientifically constructed ears on the market for grooved wire. They are carefully grooved by special tools, so as to conform accurately to the grooving in the wire. Melted solder poured into holes provided for this purpose, makes the wire and ear practically form a solid combination, which prevents the possibility of the wire working loose.

List No.	Mfrs. No.		Price per 100
15601	577	Giant Pull-over Grooved Wire Ear; 15 in. long, 00 wire, tapped $\frac{5}{8}$ in., wgt. 21 oz.	\$ 83 43
15602	579	Giant Pull-over Grooved Wire Ear; 15 in. long, 000 wire, tapped $\frac{3}{4}$ in., wgt. 21 oz.	83 43
15603	581	Giant Pull-over Grooved Wire Ear, 15 in. long, 0000 wire, tapped $\frac{3}{4}$ in., wgt. 21 oz.	83 43

ELECTRIC RAILWAY SUPPLIES.

Soldered Anchor Ear.



For Round Wire

List No.	Mfrs. No.		Price per 100.
15604	754	Half Strain Ear; 11 inches long, for O. round wire, weight 18 ounces.....	\$40 00
15605	755	Half Strain Ear; 11 inches long, for OO. round wire, weight 18 ounces.....	40 00
15606	756	Half Strain Ear; 11 inches long, for OOO. round wire, weight 24 ounces.....	50 00
15607	757	Half Strain Ear; 11 inches long, for OOOO. round wire, weight 24 ounces.....	50 00

Standard Trolley Wheel.



List No.	Mfrs. No.		Each.
15608	770	Standard Wheel; 4 inch diameter, 1/2 inch bushing, weight 41 ounces	\$1 50

Trolley Wheel.



For High Speed Service.

List No.	Mfrs. No.		Each.
15609	778	High Speed Wheel; 5 3/4 inch diameter, 5/8 inch bushing, weight 56 ounces.....	\$2 40

ELECTRIC RAILWAY SUPPLIES.

Philadelphia Splicing Sleeve.



Made of best grade special rolled brass rod, having greatest tensile strength.

List No.	Mfrs. No.		Price Per 100.
15610	1127	Solder Sleeve; 11/16 x 18 inches, O. round wire; weight 18 ounces	\$127 50
15611	1128	Solder Sleeve; 11/16 x 18 inches, OO. round wire; weight 18 ounces.....	127 50
15612	1133	Solder Sleeve; 3/4 x 18 inches, OOO. round wire; weight 26 ounces.	212 50
15613	1129	Solder Sleeve; 7/8 x 20 inches, OOOO. round wire; weight 33 ounces....	275 00
15614	1134	Solder Sleeve; 5/8 x 15 inches, O. round wire; weight 12 ounces.	100 00
15615	1132	Solder Sleeve; 5/8 x 16 inches, OO. round wire; weight 12 ounces	115 00
15616	1135	Solder Sleeve; 7/8 x 18 inches, OOO. round wire; weight 14 ounces	200 00

FOR GROOVED WIRE.

15617	1138	Solder Sleeve for OO. Grooved Wire; 3/4 x 18 inches; weight 26 ounces.....	200 00
15618	1116	Solder Sleeve for OOO. Grooved Wire; 7/8 x 20 inches; weight 33 ounces....	275 00
15619	1117	Solder Sleeve for OOOO. Grooved Wire; 7/8 x 20 inches; weight 33 ounces....	275 00

K-I Splicing Sleeve.



Mechanical Joint. One Wedge at Each End.

List No.	Mfrs. No.		Price Per 100.
15620	1120	K-I Sleeve; 10 inches long, O. wire; weight 11½ ounces	\$125 00
15621	1118	K-I Sleeve; 15 inches long, O. wire; weight 17 ounces.....	137 50
15622	1121	K-I Sleeve; 10 inches long, OO. wire; weight 14 ounces.....	125 00
15623	1119	K-I Sleeve; 15 inches long, OO. wire; weight 21 ounces	137 50
15624	1122	K-I Sleeve; 15 inches long, OOO. wire; weight 21 ounces	150 00
15625	1123	K-I Sleeve; 15 inches long, OOOO. wire; weight 24 ounces.....	162 50
15626	1136	K-I Sleeve; 14 inches long, 300,000 C. M.; weight 52 ounces.....	375 00
15627	1137	K-I Sleeve; 14 inches long, 500,000 C. M.; weight 64 ounces.....	412 50

Extra Wedges to OOOO., \$7.50 per 100.

ELECTRIC RAILWAY SUPPLIES.

No. 2 Giant Strain Insulator.



The Giant Strain Insulator is exactly what its name implies, for it is giant in strength and insulating qualities, and is to-day the Standard in the market, having largely superseded other forms for similar purposes. Heavy sheets mica furnishes the insulation for all parts under strain, other parts and the exterior are insulated with our well known Moulded Mica. There are thousands of these insulators in use under the most severe conditions, and we can recommend them to the most exacting for all conditions where the use of an insulator of this type is desired.

Breaking strain, 5,000 lbs. Diameter, 2 inches.

List No.	Mfrs. No.		Price per 100.
15628	826	No. 2 Giant Strain; small eye both ends, takes 1/2 inch bolt, weight 14 1/2 ounces.	\$60 00
15629	823	No. 2 Giant Strain; small eye one end, 1/2 inch nut other end, takes 1/2 inch bolt, weight 14 ounces.....	60 00
15630	824	No. 2 Giant Strain; 1/2 inch nut both ends, weight 13 1/2 ounces.....	60 00

No. 2 Giant Strain Insulator.

With Clevis and Large Eye Combination.

List No.	Mfrs. No.		Price Per 100.
15631	825	No. 2 Giant Strain; small eye one end, clevis on other end, eye takes 1/2 inch bolt, clevis has 9/16 spread, takes 3/8 inch bolt, weight 18 1/2 ounces.....	70 00
15632	829	No. 2 Giant Strain; large eye both ends, takes 5/8 inch bolt, weight 17 ounces....	80 00
15633	828	No. 2 Giant Strain; large eye one end, small eye other end, large eye takes 5/8 inch bolt, small eye takes 1/2 inch bolt, weight 16 ounces.....	70 00

No. 2 Giant Strain Insulator.

With Clevis and Large Eye Combination.

List No.	Mfrs. No.		Price Per 100.
15634	827	No. 2 Giant Strain; clevis both ends, clevis has 9, 16 inch spread, takes 3/8 inch bolt, weight 22 ounces	80 00
15635	852	No. 2 Giant Strain; clevis one end and large eye on the other, clevis has 9/16 inch spread, takes 3/8 inch bolt, eye takes 5/8 inch bolt, weight 17 1/2 ounces ..	80 00
15636	853	No. 2 Giant Strain; large eye one end, 1/2 inch nut other end, eye takes 5/8 inch bolt, weight 16 ounces.	70 00

ELECTRIC RAILWAY SUPPLIES.

No. 1 Giant Strain Insulator.



This insulator is the same in construction as No. 2 Giant Strain, but larger and heavier throughout, and suitable where unusually severe conditions are to be met. It is adapted for all general construction work. Average breaking strain, 8,000 lbs. Diameter 2 $\frac{5}{8}$ inches.

List No.	Mfrs. No.		Price Per 100.
15637	830	No. 1 Giant Strain; 9/16 inch eyes, takes $\frac{1}{2}$ inch bolt; weight 27 ounces.....	\$95 00
15638	831	No. 1 Giant Strain; $\frac{5}{8}$ inch nut one end; weight 25 $\frac{1}{2}$ ounces.....	95 00
15639	835	No. 1 Giant Strain; $\frac{5}{8}$ inch nut both ends; weight 24 ounces.....	95 00

No. 1 Giant Strain Insulator.

List No.	Mfrs. No.		Price Per 100.
15640	832	No. 1 Giant Strain; with large eye on one end, takes $\frac{3}{4}$ inch bolt, small eye on other end, takes $\frac{1}{2}$ inch bolt; weight 29 ounces	\$110 00
15641	842	No. 1 Giant Strain; with large eye both ends, takes $\frac{3}{4}$ inch bolt both ends; weight 31 ounces.	125 00
15642	843	No. 1 Giant Strain; large eye one end and 5/8 inch nut other end, large eye takes $\frac{3}{4}$ inch bolt; weight 27 $\frac{1}{2}$ ounces.....	110 00
15643	845	No. 1 Giant Strain; large eye one end, large clevis other end; large eye takes $\frac{3}{4}$ inch bolt, large clevis has $\frac{5}{8}$ inch spread and takes $\frac{1}{2}$ inch bolt; weight 35 $\frac{1}{2}$ ounces	125 00
15644	846	No. 1 Giant Strain; large eye one end, small clevis other end; large eye takes $\frac{3}{4}$ inch bolt, small clevis has $\frac{1}{2}$ inch spread and takes $\frac{3}{8}$ inch bolt; weight 31 $\frac{1}{2}$ ounces	125 00

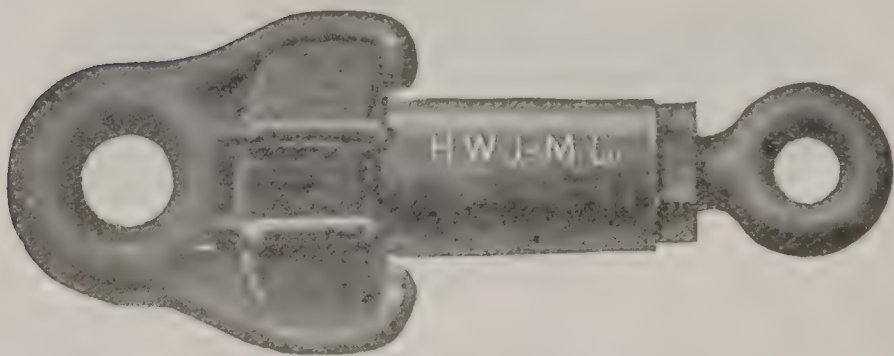
No. 1 Giant Strain Insulator.

With Clevis Combination.

List No.	Mfrs. No.		Price Per 100.
15645	833	No. 1 Giant Strain; small clevis one end, small eye other end; clevis has $\frac{1}{2}$ inch spread and takes $\frac{3}{8}$ inch bolt, eye takes $\frac{1}{2}$ inch bolt; weight 28 $\frac{1}{2}$ ounces.	\$110 00
15646	834	No. 1 Giant Strain; large clevis one end, small eye other end; clevis has $\frac{5}{8}$ inch spread and takes $\frac{1}{2}$ inch bolt, eye takes $\frac{1}{2}$ inch bolt; weight 34 ounces,	110 00
15647	847	No. 1 Giant Strain; small clevis both ends; small clevis has $\frac{1}{2}$ inch spread and takes $\frac{3}{8}$ inch bolt; weight 30 $\frac{1}{2}$ ounces.....	125 00
15648	848	No. 1 Giant Strain; large clevis both ends; large clevis has $\frac{5}{8}$ inch spread and takes $\frac{1}{2}$ inch bolt; weight 38 ounces.....	125 00
15649	858	No. 1 Giant Strain; extra large clevis one end, has $\frac{3}{4}$ inch spread, takes $\frac{5}{8}$ inch bolt; weight 40 ounces.....	120 00
15650	859	No. 1 Giant Strain; extra large clevis both ends, has $\frac{3}{4}$ inch spread, takes $\frac{5}{8}$ inch bolt; weight 43 ounces..	135 00

ELECTRIC RAILWAY SUPPLIES.

Brooklyn Strain Insulator.



Moulded Mica Insulation, drop forged or bronze bolt, malleable iron or bronze body and bolt. Has three inches take-up, and is especially recommended for the insulation of Span wires. The fixed eye is 3/4 inch diameter for attachment to bolt in pole strap. Diameter of eye bolt, 5/8 inch.

List No.	Mfrs No.		Price per 100.
15651	803	Brooklyn Strain Insulator, bronze, weight 39 ounces.....	\$237 50
15652	804	Brooklyn Strain, with clevis, bronze, weight 38½ ounces.....	267 50
15653	805	Brooklyn Strain Insulator, malleable iron body, Japanned, weight 38½ ounces	132 50
15654	801	Brooklyn Strain Insulator, malleable iron body, galvanized, weight 38½ ounces	137 50
15655	802	Brooklyn Strain Insulator, malleable iron body, galvanized, with bronze bolt, weight 40 ounces.....	167 50
15656	806	Brooklyn Strain, malleable iron, galvanized, with bronze clevis, weight 39 ozs.	197 50

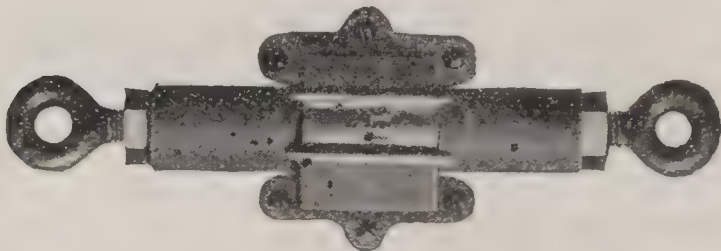
Brooklyn Strain Insulator.

This Insulator is extra heavy throughout, has a 3/4 inch eye bolt, and 3 inch take-up, suitable for any construction where an insulated turnbuckle is necessary, and is also used for dead ending.

List No.	Mfrs. No.		Price per 100.
15657	815	Brooklyn Strain; extra heavy malleable iron, Japanned, weight 60½ ounces..	\$250 00
15658	807	Brooklyn Strain; extra heavy malleable iron, galvanized, weight 60½ ounces .	260 00
15659	813	Brooklyn Strain; extra heavy malleable iron, galvanized, with bronze bolt, weight 77½ ounces.....	290 00
15660	814	Brooklyn Strain; extra heavy bronze, weight 81½ ounces	425 00

ELECTRIC RAILWAY SUPPLIES.

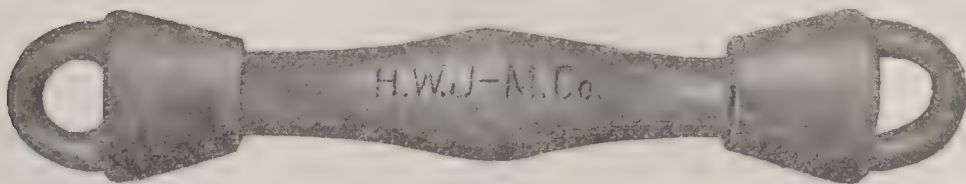
Double Brooklyn Strain.



Consists of two insulated bodies held together by one malleable iron shackle, and is used for anchoring heavy wires and cables.

List No.	Mfrs. No.		Price Per 100.
15661	816	Medium Double Brooklyn Strain; 5/8 inch drop forged steel eye bolt, japanned; weight 72 ounces.	\$250 00
15662	817	Extra Heavy Double Brooklyn Strain; 3/4 inch drop forged steel eye bolt, japanned; weight 135 ounces.	462 50
15663	819	Medium Double Brooklyn Strain; 5/8 inch drop forged steel eye bolt, galvanized; weight 72 ounces.	262 50
15664	820	Extra Heavy Double Brooklyn Strain; 3/4 inch drop forged steel eye bolt, galvanized; weight 135 ounces.	487 50

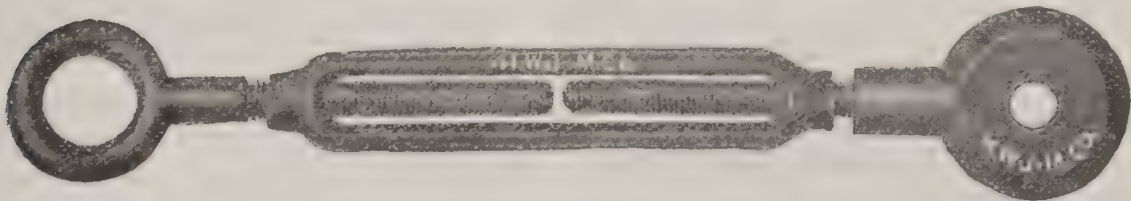
Wood Break Strain Insulator.



These insulators are made of selected, thoroughly seasoned wood, split into sticks before being turned to insure straight grain, and are treated by the "Vacuum Compound Process" to exclude moisture. This process insures thorough impregnation of every portion of the wood, and in addition to preventing the absorption of moisture greatly increases its strength and toughness. They are provided with mild steel caps which are placed over the ends of the piece and then closed by heavy machinery. These insulators have the largest diameter at the bottom of the cap, and when subjected to a strain acts like an inverted wedge. The greater the strain put on the insulator, the tighter becomes the fit of the cap.

List No.	Mfrs. No.		Price Per 100.
15665	994	Wood Break Strain Insulator; 1 inch diameter, 9 1/2 inches between centres; weight per 100, 144 lbs.	\$42 50
15666	995	Wood Break Strain Insulator; 1 1/4 inch diameter, 9 1/2 inches between centres; weight per 100, 188 lbs.	55 00
15667	996	Wood Break Strain Insulator; 1 inch diameter, 20 inches between centres; weight per 100, 175 lbs.	55 00
15668	997	Wood Break Strain Insulator; 1 1/4 inch diameter, 20 inches between centres; weight per 100, 300 lbs.	75 00
15669	998	Wood Break Strain Gooseneck Insulator; with nut, tapped 5/8 inch; weight per 100, 125 lbs.	50 00

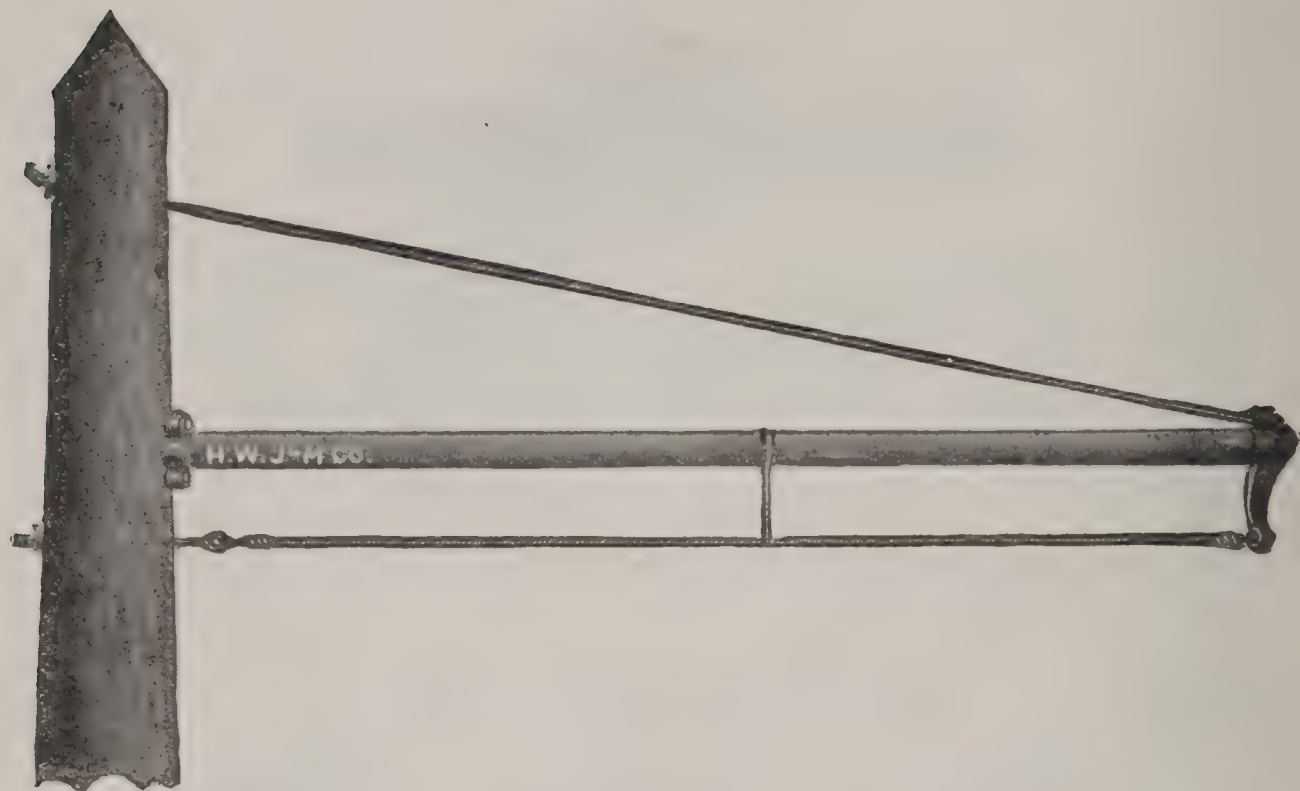
Insulated Turn Buckle.



List No.	Mfrs. No.		Price Per 100.
15670	436	Turn Buckle; 6 inch opening, 1/2 inch eye bolt, plain; weight 33 ounces.	\$137 50
15671	437	Turn Buckle; 6 inch opening, 1/2 inch eye bolt, galvanized; weight 33 ounces.	150 00
15672	438	Turn Buckle; 6 inch opening, 5/8 inch eye bolt, plain; weight 35 ounces.	162 50
15673	439	Turn Buckle; 6 inch opening, 5/8 inch eye bolt, galvanized; weight 35 ounces.	175 00
15674	441	Turn Buckle; 12 inch opening, 5/8 inch eye bolt, plain; weight 50 ounces.	200 00
15675	442	Turn Buckle; 12 inch opening, 5/8 inch eye bolt, galvanized; weight 50 ounces.	220 00

ELECTRIC RAILWAY SUPPLIES.

Bracket Arms.



Type B.

Flexible Bracket Arm for wooden pole; steel arm, malleable iron socket flange, wrought iron guy rod, malleable iron fittings, with 5/16 inch steel stranded span wire. These bracket arms are very light and strong, and make an excellent construction.

List No.	Mfrs. No.		Price Each.
15676	294	Top Braced Flexible Bracket Arm; 1½ inch arm, 9 feet long, weight 34 lbs.....	\$3 75
15677	224	Top Braced Flexible Bracket Arm, 1½ inch arm, 9½ feet long, weight 35 lbs....	3 90

Wooden Tree Insulators.

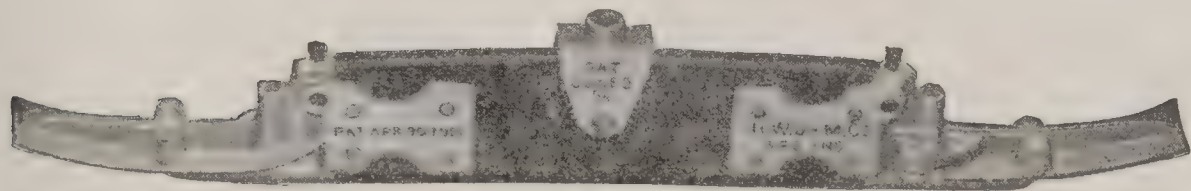


These Insulators offer valuable protection against the dangers and losses which result from the abrasion of electric light and feeder wires. They are furnished in wood, in halves, saturated with a preservative compound, and are readily attached to the wire, and held in place, as illustrated in the cut. Thousands in use by electric railway and lighting companies.

List No.	Mfrs. No.		Price per 1000.
15678	1006	Size ¾ x 12 inches long, No. 6 wire, weight, each, 6 ounces.....	\$211 25
15679	1007	Size ¾ x 18 inches long, No. 6 wire, weight, each, 8 ounces	243 75
15680	1008	Size ¾ x 13½ inches long, O. wire, weight, each, 9 ounces.....	269 75
15681	1009	Size ¾ x 18 inches long, O. wire, weight, each, 10 ounces.....	292 50
15682	1010	Size ¾ x 13½ inches long, OOOO. wire, weight, each, 11 ounces.....	260 00
15683	1011	Size ¾ x 18 inches long, OOOO. wire, weight, each, 15 ounces.....	325 00
15684	1012	Size 1¼ x 13½ inches long, 500,000 C. M., weight, each, 13½ ounces.....	487 50
15685	1013	Size 1¼ x 18 inches long, 500,000 C. M., weight, each, 16 ounces.....	503 75

ELECTRIC RAILWAY SUPPLIES.

Section Insulators.



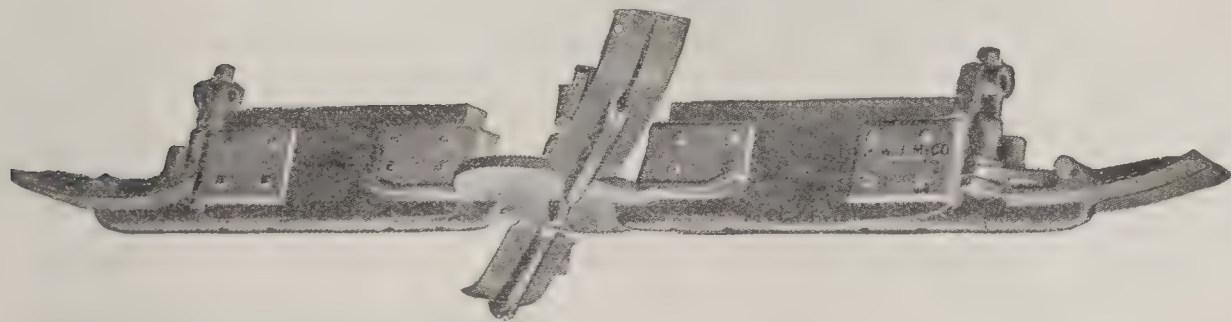
Philadelphia Break—Style A.
Patented.

The Philadelphia Section Insulator combines substantial construction with lightness in weight and durability. The metal parts are malleable iron, galvanized. It takes the trolley wheel gradually and permits of high speed. The insulation is of 3/4 inch special fibre. Provision is made for tap in wires at each end, suitable for round or grooved wire.

List No.	Mfrs. No.		Each.
15686	990	Section Insulator; 5/8 inch socket, for O. or OO. wire; weight 5 lbs...	\$10 00
15687	991	Section Insulator; 3/4 inch socket, for OOO. or OOOO. wire; weight 5 1/2 lbs....	12 50

Standard Insulated Cross-Over.

Patented.



These crossings are adjustable and thoroughly insulated. They are very strong and embody all of the latest improvements, being a section insulator and crossing combined.

List No.	Mfrs. No.		Each.
15689	987	Adjustable Insulated Crossing, for O. or OO. wire; weight 22 lbs.....	\$25 00
15690	988	Adjustable Insulated Crossing, for OOO. or OOOO. wire; weight 30 lbs.....	30 00

Standard Metallic Cross-Over.

Patented

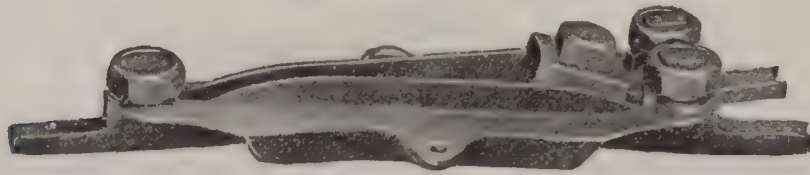


These crossings are made of the best grade of malleable iron, thoroughly galvanized, with straight under-run, permitting of great speed; are more durable than brass, easily put in line, as shown by above illustration. May be used either right angle or adjustable.

List No.	Mfrs. No.		Each.
15691	985	Malleable Iron Crossing; galvanized for O. or OO. wire, round or grooved; weight 16 lbs	\$8 50
15692	986	Malleable Iron Crossing; galvanized for OOO. or OOOO. wire, round or grooved; weight 18 lbs.....	11 00

ELECTRIC RAILWAY SUPPLIES.

Overhead Trolley Frogs.



Form G.

Manufactured exclusively by the General Electric Co.

The line of standard Trolley Frogs has been fully developed to meet the requirements of the various classes of modern electric railway construction.

For different classes of service three sets of frogs, differing in the divergence angle of tongues and length of pan are furnished.

For ordinary city service, with turnout radii not exceeding about 50 feet, the 20° frogs are suitable, but with the longer radii introduced by suburban and interurban work, smaller divergence angles are necessary and the employment of higher speeds has necessitated the use of longer pans to allow overcoming the inertia of the trolley wheel in transition between the inner ends of tongues.

The following table gives range of distance from track switch point to track frog with which each set of trolley frogs may be most satisfactorily used:

Frog Distance.	Divergence Angle of Trolley Frog.
Up to 22 feet	20°
From 20 to 30 feet	15°
Above 28 feet	8°

The minimum frog distance given in the table with which the 15° frogs may be used to best advantage corresponds to a turnout radius of 40 feet, but when suburban cars using high speed trolley wheels run over city tracks it is advisable to use 15° rather than 20° frogs throughout the city construction, even where minimum frog distance is less than 20 feet. In order to insure smooth transition of the wheel between tongue and pan, the pans of all form G frogs have, at each end, an inclined plane rising at a very acute angle from the horizontal, which receives the flange of the wheel at a point depending upon the depth of the wheel groove, the depth of tongue and rise of the inclined plane admitting the use of a groove depth of from $\frac{3}{4}$ inch to $1\frac{1}{8}$ inches.

The 20° frogs are especially designed for use with Nos. O. and OO. wire, but will admit the use of No. OOO. round or grooved.

The 15° and 8° frogs are designed for wire up to and including No. OOOO., round or grooved.

Twenty Degree Frogs.

List No.	Mfrs. No.		Each.
15693	976	20° Left Hand Frog, form G; for round or grooved wire up to OOO., weight $6\frac{1}{2}$ lbs	\$7 50
15694	977	20° Right Hand Frog, form G; for round or grooved wire up to OOO., weight $6\frac{1}{2}$ lbs	7 50
15695	978	20° V Frog, form G, for round or grooved wire up to OOO., weight $6\frac{1}{2}$ lbs.	7 50
15696	979	20° Three Way Frog, form G; for round or grooved wire up to OOO., weight 9 lbs.....	10 00

Fifteen Degree Frogs.

15697	989	15° Three Way Frog, form G; for round or grooved wire up to OOOO., weight 9 lbs.....	12 50
15698	982	15° Right Hand Frog, form G; for round or grooved wire up to OOOO., weight $8\frac{1}{2}$ lbs	10 00
15699	983	15° Left Hand Frog, form G; for round or grooved wire up to OOOO., weight $8\frac{1}{2}$ lbs	10 00
15700	984	15° V Frog, form G; for round or grooved wire up to OOOO., weight $8\frac{1}{2}$ lbs.	10 00

Eight Degree Frogs.

15701	1206	8° Right Hand Frog, form G; for round or grooved wire up to OOOO., weight $10\frac{1}{2}$ lbs	15 00
15702	1207	8° Left Hand Frog, form G; for round or grooved wire up to OOOO., weight $10\frac{1}{2}$ lbs	15 00
15703	1208	8° V Frog, form G; for round or grooved wire up to OOOO., weight $10\frac{3}{4}$ lbs.	15 00

Drawbridge Frogs.

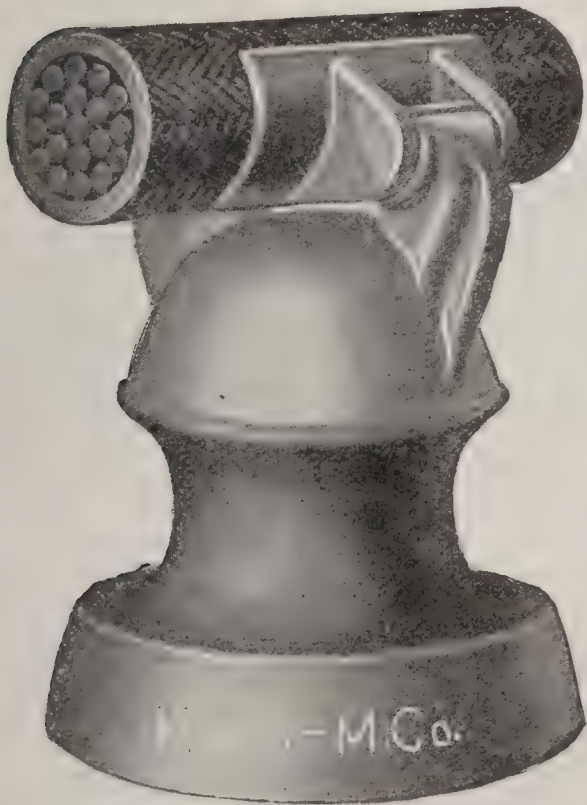
15704	1209	Drawbridge Frog, form G; complete, tapped $\frac{5}{8}$ inch, weight $10\frac{1}{4}$ lbs.....	13 50
15705	1287	Drawbridge Frog, without spring contact; tapped $\frac{5}{8}$ inch, weight $6\frac{5}{8}$ lbs... ..	10 00

ELECTRIC RAILWAY SUPPLIES.
Moulded Mica Pole Insulator.



This Insulator is intended for pole service where large cables are required. It will take up to one and one-quarter million circular mill insulated cable, and the general design of it is to sustain heavy weights. It is double petticoated and extra heavy throughout, with large surface insulation. In ordering please state size pin used, otherwise we will ship with thread for standard 1½ x 9 inch pin.

List No.	Mfrs. No.		Price per 100.
15706	911	Moulded Pole Insulator; side groove only, for 500,000 C. M. cable and under, weight 17½ ounces.....	\$87 50
15707	914	Moulded Pole Insulator; side groove only, 1¾ inches, for cable over 500,000 C. M., weight 16½ ounces.....	100 00



Toggle Clamp Feed Wire Insulator.

The purpose of this insulator is to enable the feed wire to be attached to the insulator without the use of binding wires, screw caps, or other time-consuming devices.

The illustration shows the manner in which the pivoted jaws in sinking under the weight of the wire, automatically clamp the wire with a powerful toggle action which effectually prevents the wire from slipping or chafing. The jaws are three inches long, and furnish a wide, smooth seat for the wire, thus preventing damage to the insulating covering.

The extreme simplicity in placing the cables in position, changing or taking them down, is a feature which has been greatly desired by operators where large cables are required. By using this Toggle Clamp, the cables are dropped into position without any extra labor, their own weight holding them securely in place.

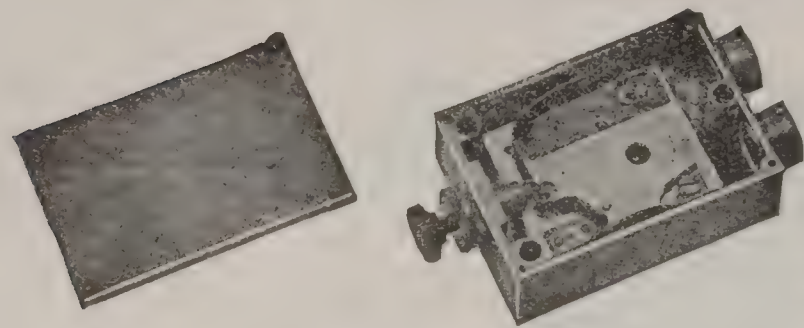
It is apparent from the construction of these insulators, that they can be very quickly and cheaply installed, and will save their cost in labor. They are made for different sized pins, so please state size of pin used, otherwise we furnish thread for standard 1½ x 9 inch pin.

List No.	Mfrs. No.		Price per 100.
15708	907	Toggle Clamp Insulator; galvanized malleable iron shell, ¾ inch over insulation (0000. wire), weight 51 ounces.....	\$137 50
15709	908	Toggle Clamp Insulator; galvanized malleable iron shell, 1¼ inches over insulation (500,000 C. M.), weight 52 ounces.....	137 50
15710	909	Toggle Clamp Insulator; galvanized malleable iron shell, 1½ inches over insulation, (750 000 C. M.), weight 53½ ounces.....	137 50
15711	910	Toggle Clamp Insulator; galvanized malleable iron shell, 1 9/16 inches over insulation (1,000,000 C. M.), weight 53½ ounces.....	137 50

MARINE ELECTRIC SUPPLIES.

W. T. Pulsating Switches.

Arranged for Moulding Wiring.

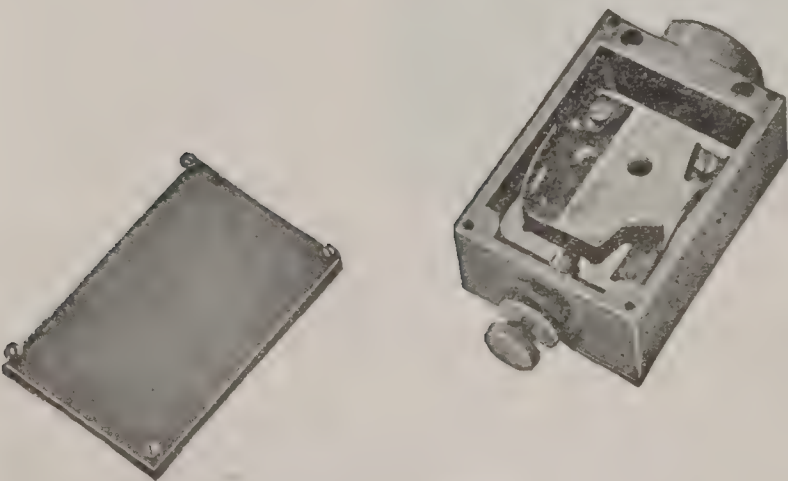


List No. 22514.

List No.		Price Each.
22514	Switch complete.....	\$4 00
22515	Box.....	2 75
22516	Cover for box.....	60
25013	Interior fitting.....	50

W. T. Pulsating Switches.

Arranged for Conduit Wiring.

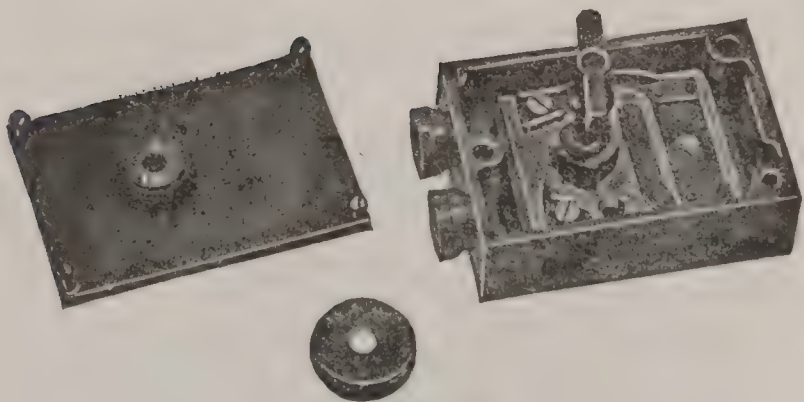


List No. 22694.

List No.		Price Each.
22694	Switch complete.....	\$5 00
25029	Box.....	3 75
22516	Cover for box.....	60
25013	Interior fitting.....	50

W. T. Single Pole,
5 Ampere Switches.

Arranged for Moulding Wiring.

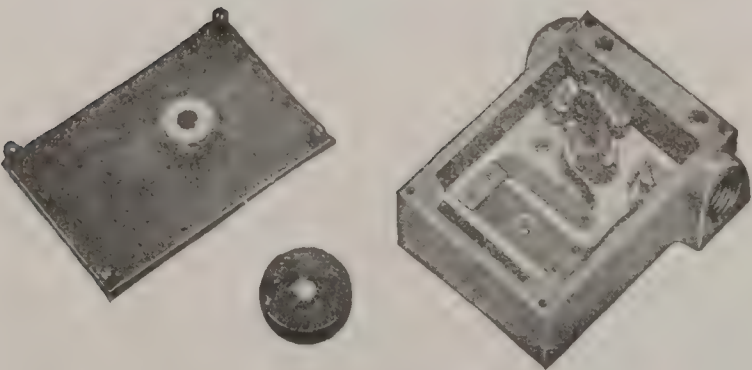


List No. 22474.

List No.		Price Each.
22474	Switch complete.....	\$4 75
22475	Box.....	2 50
22476	Cover for box.....	90
22491	Switch handle.....	25
25000	Interior fitting.....	1 10

W. T. Single Pole,
5 Ampere Switches.

Arranged for Conduit Wiring.



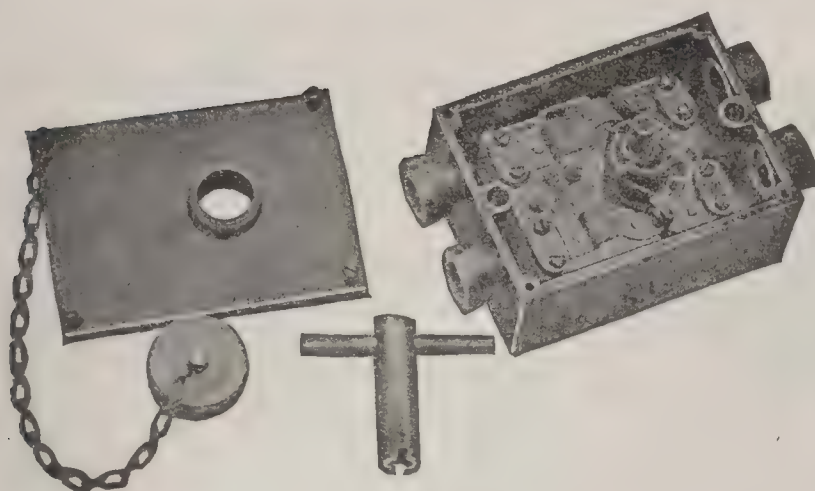
List No. 21860.

List No.		Price Each.
21860	Switch complete.....	\$5 75
25038	Box.....	3 50
25039	Cover for box.....	90
22491	Switch handle.....	25
25000	Interior fitting.....	1 10

MARINE ELECTRIC SUPPLIES.

W. T. Double Pole, 25 Amp. Switches.

Arranged for Moulding Wiring.

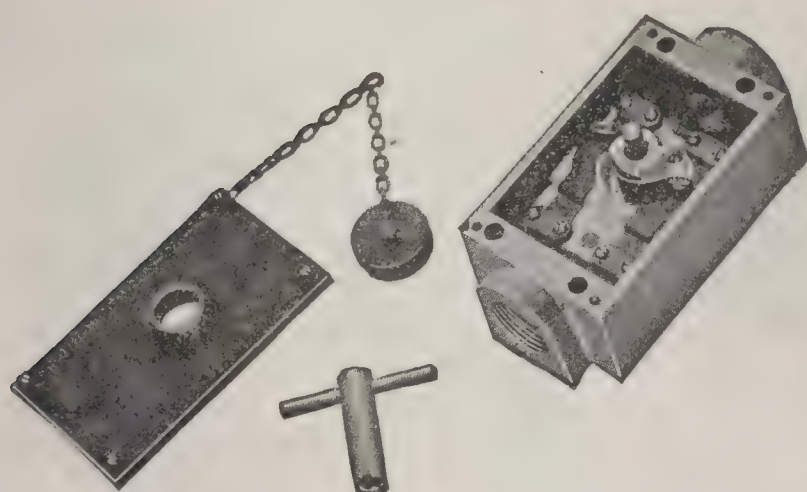


List No. 22530.

List No.	Price Each.
22530	Switch complete, without handle.....\$6 00
22531	Box..... 2 75
22533	Cover for box, with cap.... 90
22513	Cap for cover..... 25
25004	Switch handle..... 50
25003	Interior fitting..... 1 50

W. T. Double Pole, 25 Amp. Switches.

Arranged for Conduit Wiring.

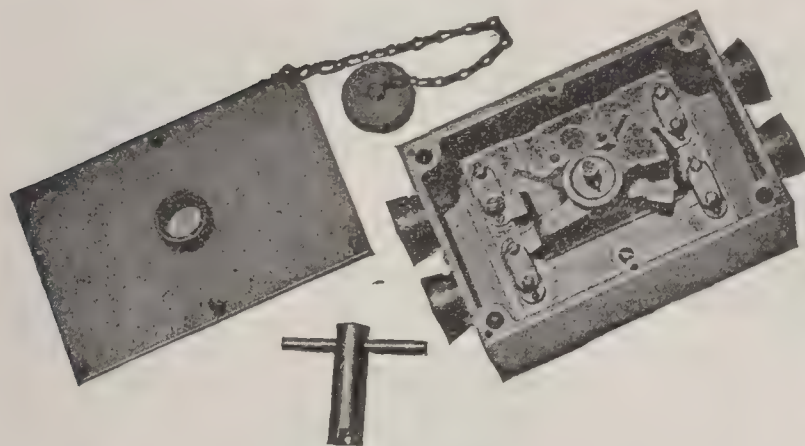


List No. 22324.

List No.	Price Each.
22324	Switch complete, without handle.....\$7 75
25024	Box..... 4 50
25040	Cover for box, with cap.... 90
22513	Cap for cover..... 25
25004	Switch handle..... 50
25003	Interior fitting..... 1 50

W. T. Double Pole, 40 Amp. Switches.

Arranged for Moulding Wiring.

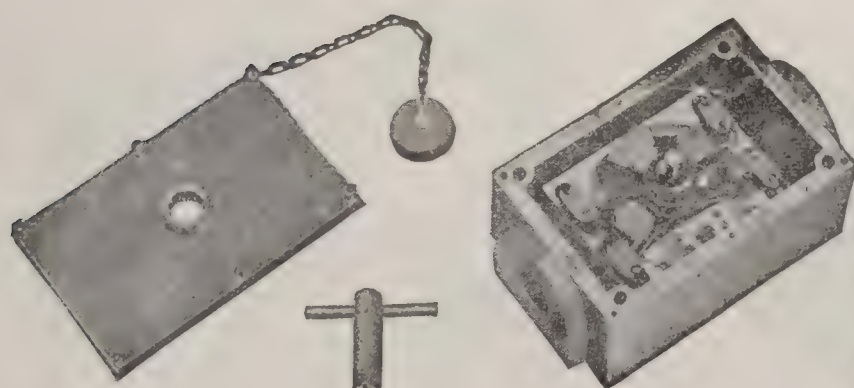


List No. 22681.

List No.	Price Each.
22681	Switch complete, without handle.....\$12 00
25006	Box..... 6 00
25007	Cover for box, with cap... 1 75
22513	Cap for cover..... 25
25004	Switch handle..... 50
25008	Interior fitting..... 3 50

W. T. Double Pole, 40 Amp. Switches.

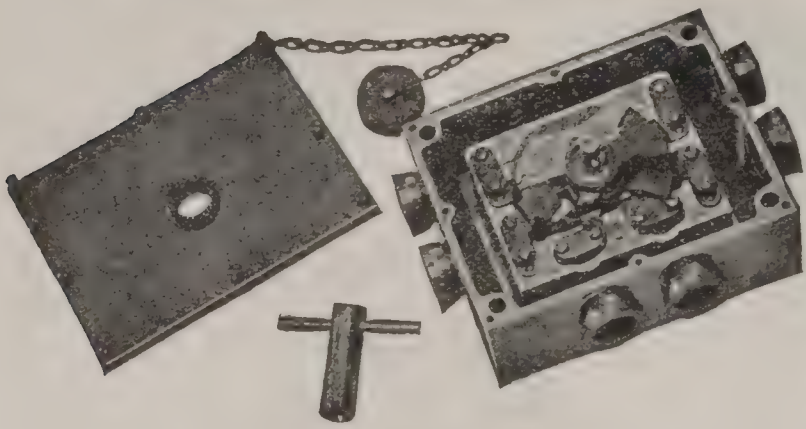
Arranged for Conduit Wiring.



List No. 22691.

List No.	Price Each.
22691	Switch complete, without handle.....\$13 50
25026	Box..... 7 50
25042	Cover for box, with cap... 1 75
22513	Cap for cover. 25
25004	Switch handle..... 50
25008	Interior fitting..... 3 50

MARINE ELECTRIC SUPPLIES.

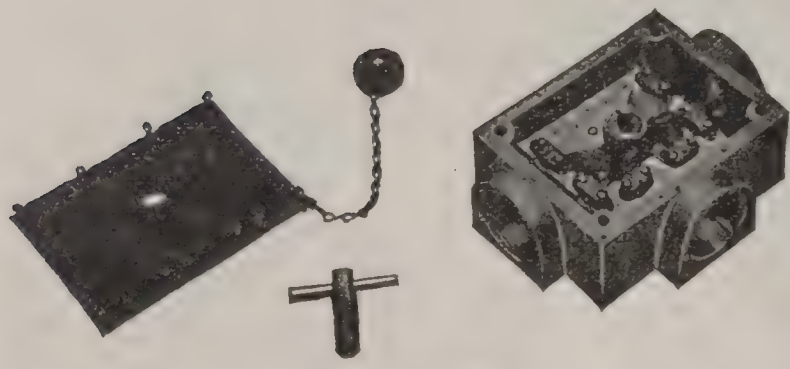


List No. 22685.

W. T. Double Pole.
Double Throw, 40 Ampere
Switches.

Arranged for Moulding Wiring.

List No.		Price Each.
22685	Switch complete, without handle.....	\$13 00
25009	Box.....	6 50
25010	Cover for box, with cap ...	1 75
22513	Cap for cover.....	25
25004	Switch handle.....	50
25011	Interior fitting.....	4 00



List No. 22692

W. T. Double Pole,
Double Throw, 40 Ampere
Switches.

Arranged for Conduit Wiring.

List No.		Price Each.
22692	Switch complete, without handle.....	\$15 50
25027	Box	9 00
25043	Cover for box, with cap....	1 75
22513	Cap for cover.....	25
25004	Switch handle.....	50
25011	Interior fitting.....	4 00



List No. 22602.

W. T. Double Pole,
100 Ampere Switches.

Arranged for Moulding Wiring.

List No.		Price Each.
22602	Switch complete, without handle.....	\$18 00
22603	Box.....	8 50
22604	Cover for box, with cap....	2 50
22513	Cap for cover.....	25
25004	Switch handle.....	50
25012	Interior fitting.....	6 00



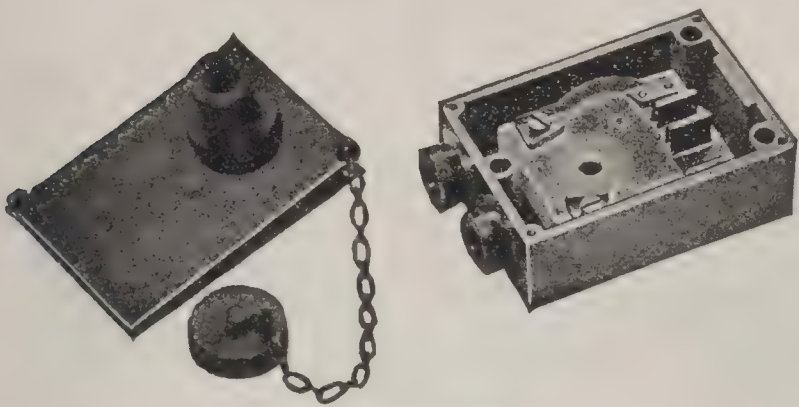
List No. 22693.

W. T. Double Pole,
100 Ampere Switches.

Arranged for Conduit Wiring.

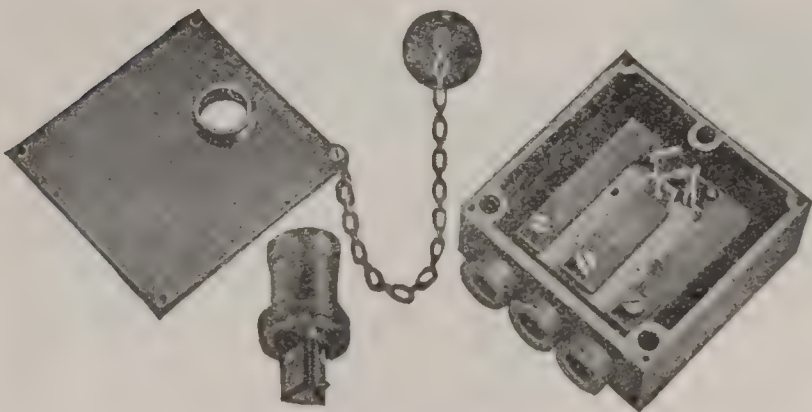
List No.		Price Each.
22693	Switch complete, without handle.....	\$21 50
25028	Box.....	12 00
25044	Cover for box, with cap....	2 50
22513	Cap for cover.....	25
25004	Switch handle.....	50
25012	Interior fitting.....	6 00

MARINE ELECTRIC SUPPLIES.

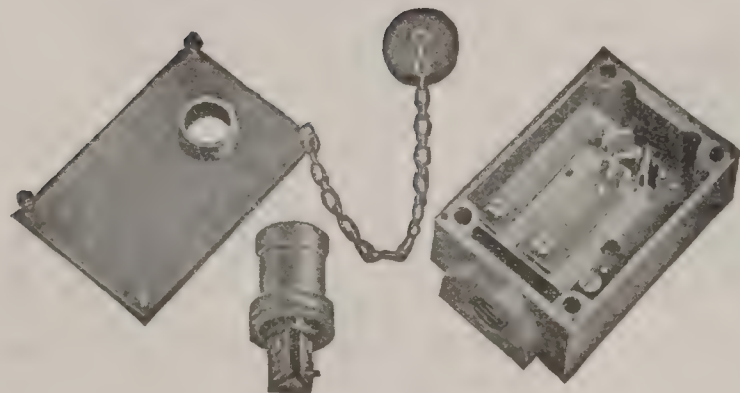


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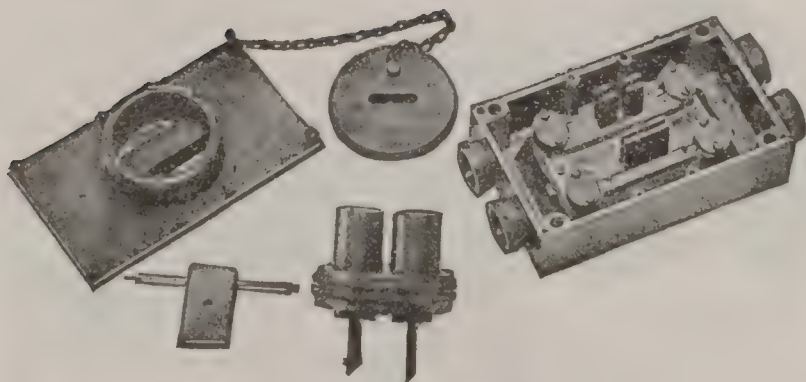
MARINE ELECTRIC SUPPLIES.



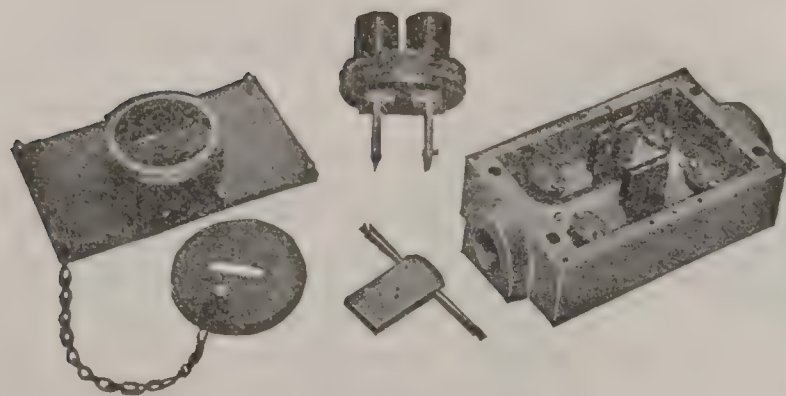
List No. 12844.



List No. 12849.



List No. 64113.



List No. 25034.

W. T. Three-Way,
5 Ampere Receptacles with
Attaching Plug.

Arranged for Moulding Wiring.

List No.	Mfrs. No.		Price Each.
12844	11300	Receptacle complete, with plug.....	\$8 75
12845	11302	Box.....	2 75
12846	11303	Cover for box, with cap.....	90
22513		Cap for cover.....	25
12847	11305	Receptacle plug complete.....	2 75
12848	11306	Interior fitting.....	2 50

W. T. Three-Way,
5 Ampere Receptacles with
Attaching Plug.

Arranged for Conduit Wiring.

List No.	Mfrs. No.		Price Each.
12849	11301	Receptacle complete, with plug.....	\$10 50
25023		Box.....	3 25
22527		Cover for box, with cap.....	1 00
22513		Cap for cover.....	25
12850	11305	Receptacle plug complete.....	2 75
12851	11306	Interior fitting.....	2 50

W. T. Search-light Recep-
tacles with Plug.

Arranged for Moulding Wiring.

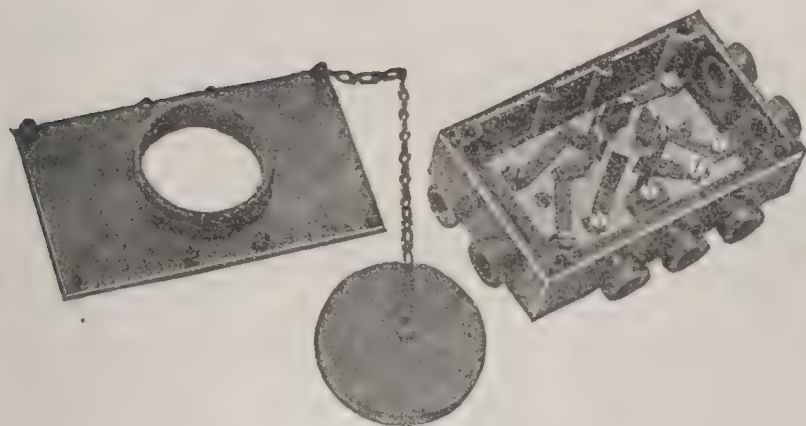
List No.		Price Each.
64113	Receptacle complete, with plug; without key.....	\$18 00
25016	Box.....	3 50
22586	Cover for box, with cap...	2 25
22579	Cap for cover.....	75
22594	Receptacle plug complete,	7 25
63766	Key for removing cap from cover.....	75
25017	Interior fitting.....	4 25

W. T. Search-light Recep-
tacles with Plug.

Arranged for Conduit Wiring.

List No.		Price Each.
25034	Receptacle complete, with plug; without key.....	\$20 00
25035	Box.....	5 50
22586	Cover for box, with cap...	2 25
22579	Cap for cover.....	75
22594	Receptacle plug complete,	7 25
63766	Key for removing cap from cover.....	75
25017	Interior fitting.....	4 25

MARINE ELECTRIC SUPPLIES.

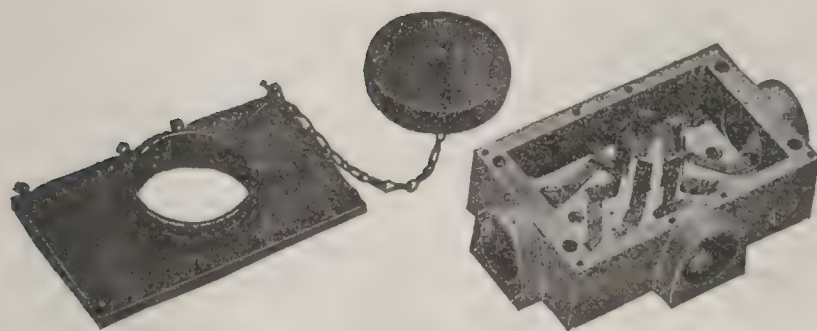


List No. 22613.

W. T. Controller Receptacle.

Arranged for Moulding Wiring.

List No.		Price Each.
22613	Receptacle complete.....	\$13 00
22614	Box.....	5 00
22615	Cover for box, with cap....	2 25
22617	Cap for cover.....	80
25014	Interior fitting.....	5 25



List No. 25036.

W. T. Controller Receptacle.

Arranged for Conduit Wiring.

List No.		Price Each.
25036	Receptacle complete.....	\$15 00
25032	Box.....	6 50
22615	Cover for box, with cap....	2 25
22617	Cap for cover.....	80
25014	Interior fitting.....	5 25

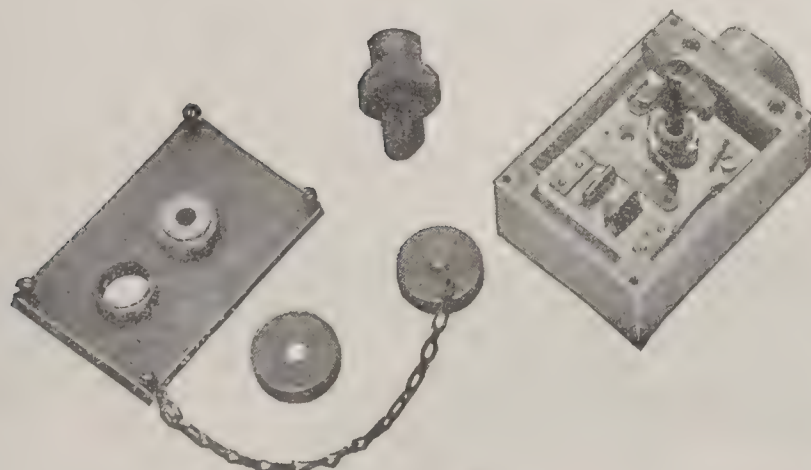


List No. 63758.

W. T. Single Pole, 5 Ampere Switches and Receptacles with Attaching Plug.

Arranged for Moulding Wiring.

List No.		Price Each.
63758	Switch and Receptacle complete, with plug.....	\$6 25
22475	Box.....	2 50
22505	Cover for box, with cap....	1 25
22513	Cap for cover.....	25
22491	Switch handle.....	25
22680	Receptacle plug complete..	1 00
25001	Interior fitting.....	1 00



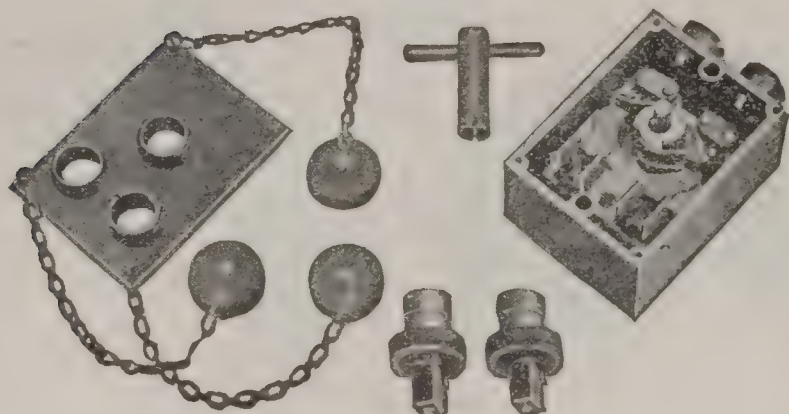
List No. 21861.

W. T. Single Pole, 5 Ampere Switches and Receptacles with Attaching Plug.

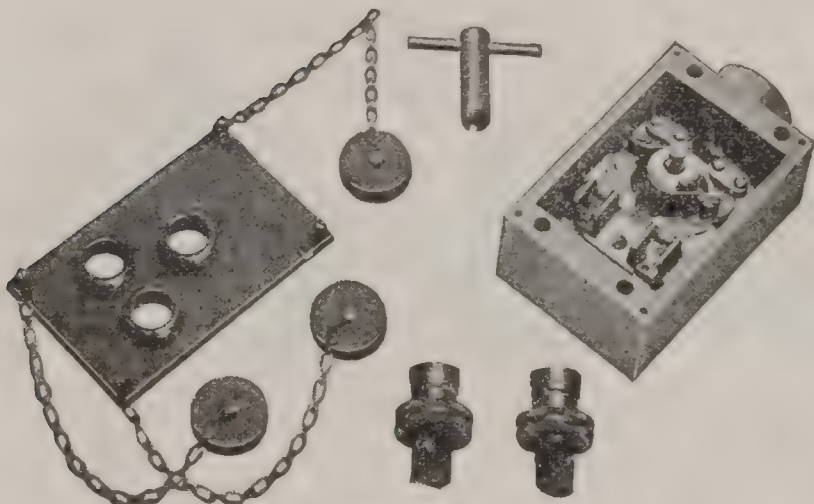
Arranged for Conduit Wiring.

List No.		Price Each.
21861	Switch and Receptacle complete, with plug.....	\$7 00
25023	Box.....	3 25
22505	Cover for box, with cap....	1 25
22513	Cap for cover.....	25
22491	Switch handle.....	25
22680	Receptacle plug complete..	1 00
25001	Interior fitting.....	1 00

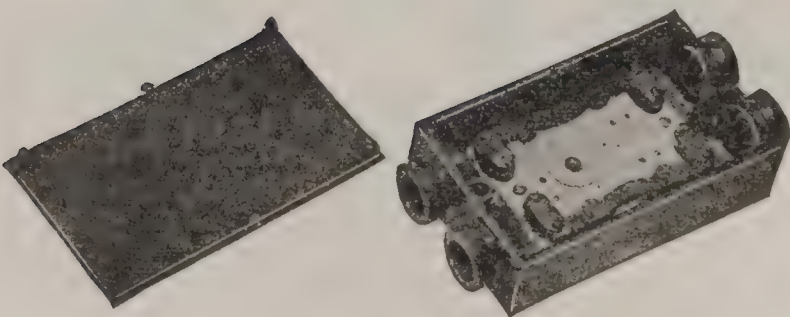
MARINE ELECTRIC SUPPLIES.



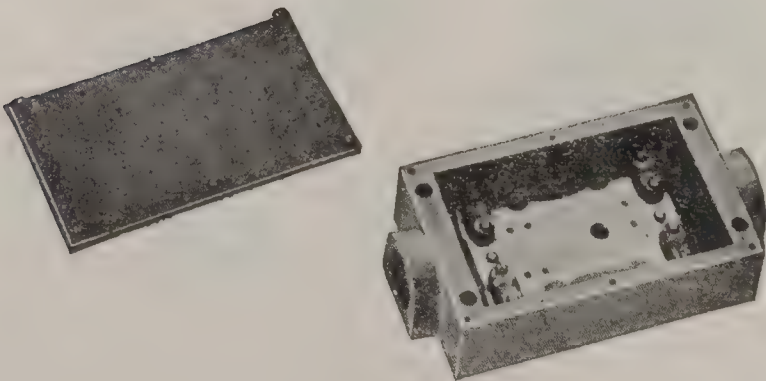
List No. 22550.



List No. 22690.



List No. 22573.



List No. 22697.

W. T. Double Pole 25 Ampere
Switches and Receptacles
with Attaching Plugs.

Arranged for Moulding Wiring.

List No.		Price Each.
22550	Switch and Receptacle, with plugs; without handle....	\$8 00
22551	Box.....	3 00
22552	Cover for box, with cap...	1 50
22513	Cap for cover	25
25004	Switch handle.....	50
22679	Receptacle plug complete.	1 00
25005	Interior fitting.....	1 75

W. T. Double Pole 25 Ampere
Switches and Receptacles
with Attaching Plugs.

Arranged for Conduit Wiring.

List No.		Price Each.
22690	Switch and Receptacle, with plugs; without handle...	\$10 00
25025	Box.....	5 00
25041	Cover for box, with cap..	1 50
22513	Cap for cover.....	25
25004	Switch handle.....	50
22679	Receptacle plug complete.	1 00
25005	Interior fitting.....	1 75

W. T. Search-light Junction
Box.

Arranged for Moulding Wiring.

List No.		Price Each.
22573	Junction Box complete....	\$5 50
22557	Box.....	3 75
22574	Cover for box.....	55
25019	Interior fitting.....	1 00

W. T. Search-light Junction
Box.

Arranged for Conduit Wiring

List No.		Price Each.
22697	Junction Box complete	\$7 50
25035	Box.....	5 50
25046	Cover for box.....	55
25019	Interior fitting	1 00

MARINE ELECTRIC SUPPLIES.



List No. 50973.

W. T. Feeder Junction Box.

Arranged for Moulding Wiring.

List No.	Price Each.
50973 Junction Box complete, without key.....	\$8 50
22576 Box.....	4 00
22577 Cover for box, with cap....	1 75
22579 Cap for cover.....	75
63766 Key for removing cap.....	75
25022 Interior fitting.....	2 00



List No. 22699.

W. T. Feeder Junction Box.

Arranged for Conduit Wiring.

List No.	Price Each.
22699 Junction Box complete, without key.....	\$11 00
25032 Box.....	6 50
25045 Cover for box, with cap...	1 75
22579 Cap for cover.....	75
63766 Key for removing cap.....	75
25022 Interior fitting.....	2 00



List No. 22689.

W. T. Three-Way Branch Junction Box.

Arranged for Moulding Wiring.

List No.	Price Each.
22689 Junction Box complete, without key.....	\$7 00
25020 Box	4 00
22577 Cover for box, with cap....	1 75
22579 Cap for cover.....	75
63766 Key for removing cap.....	75
25018 Interior fitting.....	1 00



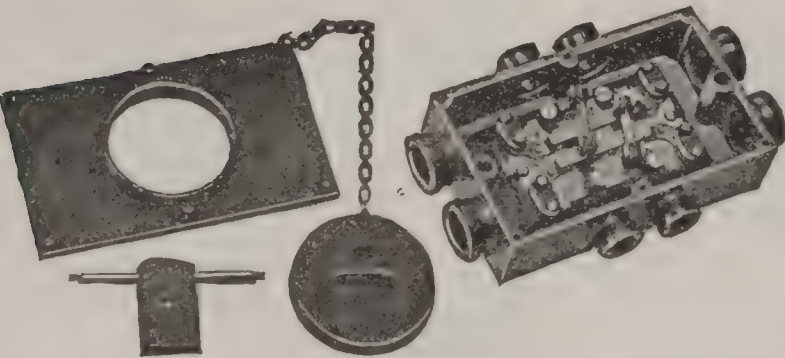
List No. 22698.

W. T. Three-Way Branch Junction Box.

Arranged for Conduit Wiring.

List No.	Price Each.
22698 Junction Box complete, without key.....	\$9 50
25032 Box.....	6 50
25045 Cover for box, with cap....	1 75
22579 Cap for cover.....	75
63766 Key for removing cap.....	75
25018 Interior fitting.....	1 00

MARINE ELECTRIC SUPPLIES.

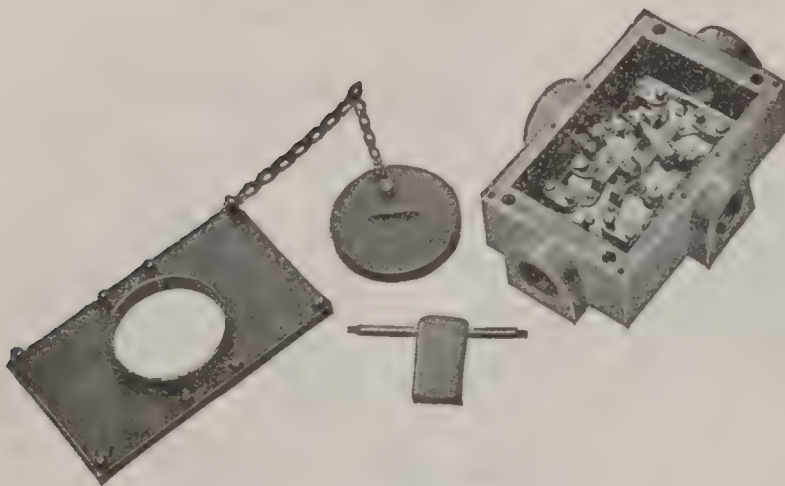


List No. 50967

W. T. Four-Way Branch Junction Box.

Arranged for Moulding Wiring.

List No.		Price Each.
50967	Junction Box complete, without key.....	\$7 25
22608	Box.....	4 25
22577	Cover for box, with cap....	1 75
22579	Cap for cover.....	75
63766	Key for removing cap.....	75
25018	Interior fitting.....	1 00

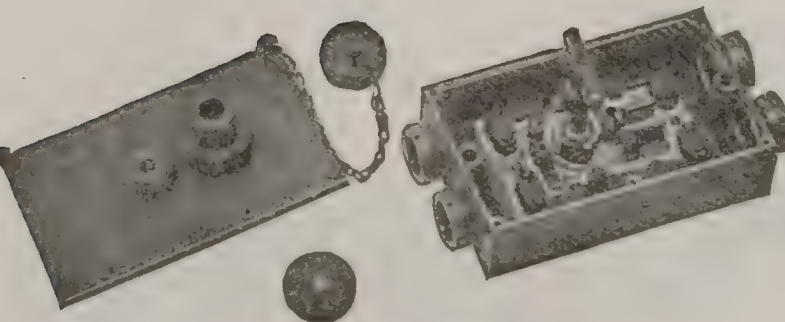


List No. 22696.

W. T. Four-Way Branch Junction Box.

Arranged for Conduit Wiring.

List No.		Price Each.
22696	Junction Box complete, without key.....	\$10 00
25031	Box.....	7 25
25045	Cover for box, with cap....	1 75
22579	Cap for cover.....	75
63766	Key for removing cap.....	75
25018	Interior fitting.....	1 00

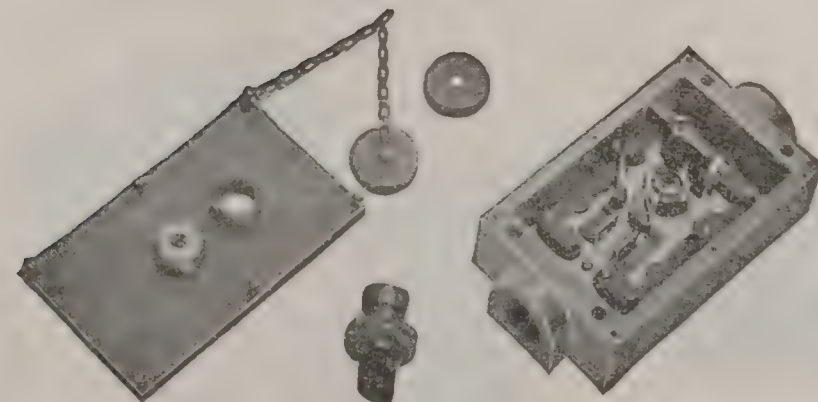


List No. 63759.

W. T. Combination Junction Box Switch and Receptacle with Attaching Plug.

Arranged for Moulding Wiring.

List No.		Price Each.
63759	Junction Box, Switch and Receptacle complete.....	\$9 00
22557	Box.....	3 75
22559	Cover for box, with cap....	1 75
22513	Cap for cover.....	25
22491	Switch handle.....	25
22680	Receptacle plug complete...	1 00
25015	Interior fitting.....	2 25



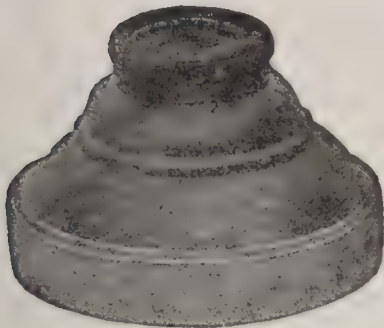
List No. 22695.

W. T. Combination Junction Box Switch and Receptacle with Attaching Plug.

Arranged for Conduit Wiring.

List No.		Price Each.
22695	Junction Box, Switch and Receptacle complete.....	\$11 00
25030	Box.....	5 75
22559	Cover for box, with cap....	1 75
22513	Cap for cover.....	25
22491	Switch handle.....	25
22680	Receptacle plug complete..	1 00
25015	Interior fitting.....	2 25

MARINE ELECTRIC SUPPLIES.



List No. 22654.
N. W. T. Keyless
Receptacle.

List No.	Price.
22654 Each.....	\$0 55



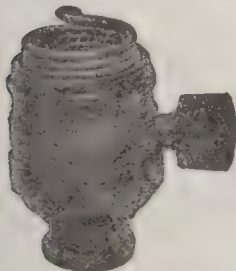
List No. 50971.
Bulkhead Stuffing
Tube.

List No.	Price.
50971 Each.....	\$0 75



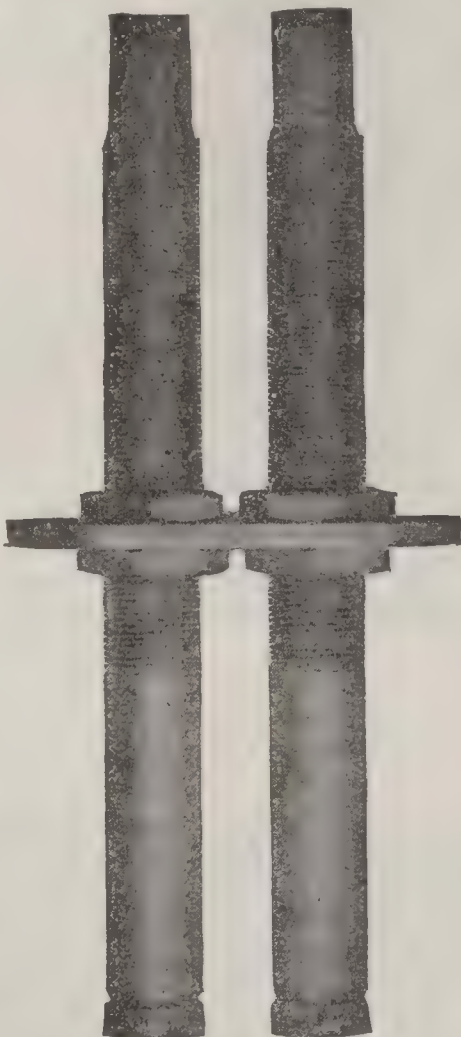
List No. 9449.
N. W. T. Key Receptacle
with Double-pole
Fuse.

List No.	Price.
9449 Each.....	\$0 60



List No. 50966.
Key Socket.

List No.	Price.
50966 Each.....	\$0 50



List No. 50970.
Main Deck Stuffing
Tube.

List No.	Price.
50970 Each.....	\$6 00



List No. 50965.
Keyless Socket.

List No.	Price.
50965 Each.....	\$0 45



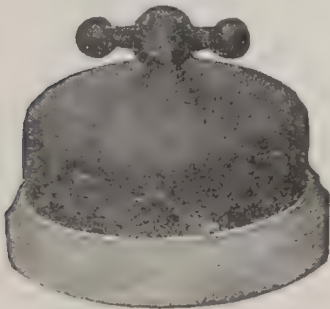
List No. 22680.
W. T. Attaching Plug.

List No.	Price.
22680 Each.....	\$1 00



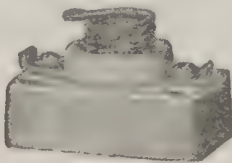
List No. 22668.
N. W. T. Attaching
Plug.

List No.	Price.
22668 Each.....	\$0 90



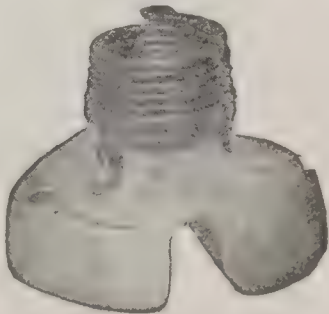
List No. 22656.
N. W. T. 10 Amp. Snap
Switch.

List No.	Price.
22656 Each.....	\$0 50



List No. 50790.
N. W. T. Miniature Re-
ceptacle for Binnacle
Lamps.

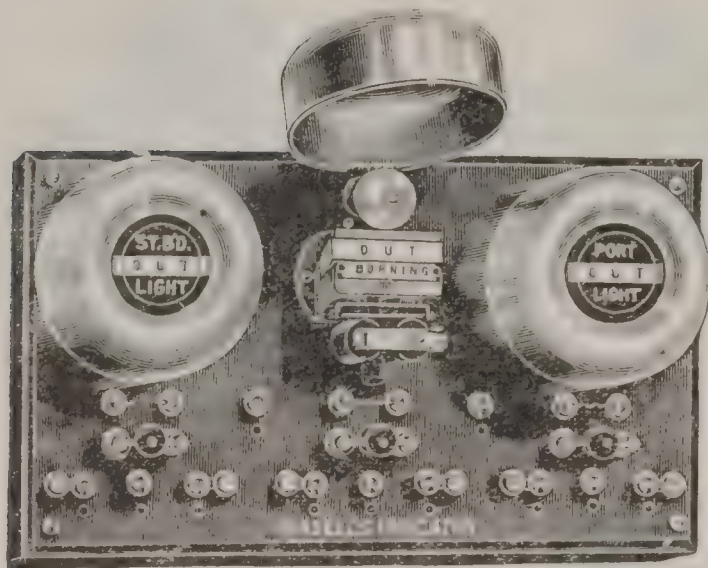
List No.	Price.
50790.....each,	\$0 15



List No. 22287.
N. W. T. Porcelain Base
Receptacle.

List No.	Price.
22287 Each.....	\$0 35

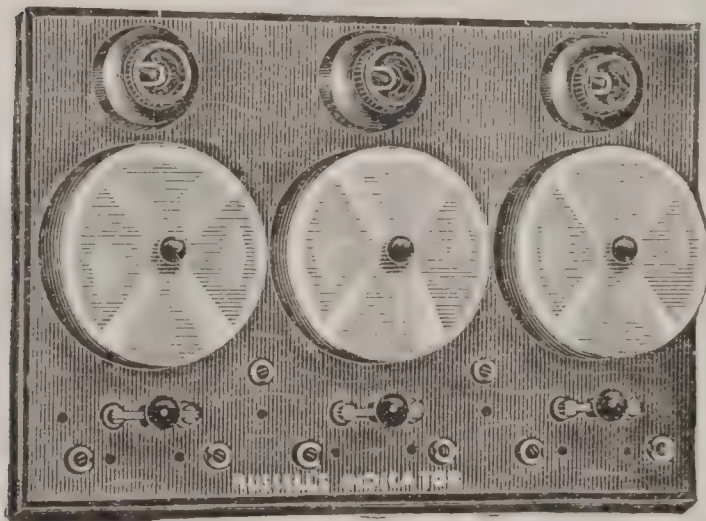
MARINE ELECTRIC SUPPLIES.

Automatic Running Light
Indicator and Control.

Indicates when a signal light goes out by a vibrator, tell-tale lamp and annunciator drop. At the same time closes a circuit to a reserve lamp, insuring constant light

Requires three wires to each lantern.

List No.	Price.
12795	For each signal...\$40 00



Simple Indicating Tell-Tale.

Vibrator and tell-tale lamp indicates when signal goes out.

Requires two wires to each lantern.

List No.	Price.
12796	For each signal...\$20 00

PORCELAIN JUNCTION BOX WITH FUSES.



PORCELAIN JUNCTION BOX WITH FUSES.

This Junction Box is a double-pole, double-branch cut-out with porcelain cover which is securely fastened to the cut-out base by means of two screws.

It is designed for protection of four ampere circuits. All current-carrying parts are of ample capacity and are made of copper having a high conductivity. The screws and caps of the fuse are of brass, all of which are mounted on the porcelain base. The outside dimensions of the porcelain box are $2\frac{1}{2} \times 4\frac{1}{2}$ in.

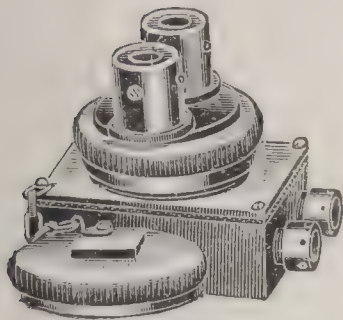
List No.

Price.

24374	Main line, double-pole, double-branch marine cut-out, complete.....	each, \$1 25
22563	Four-ampere glass tube fuse.....	" 06

MARINE WIRING SUPPLIES.

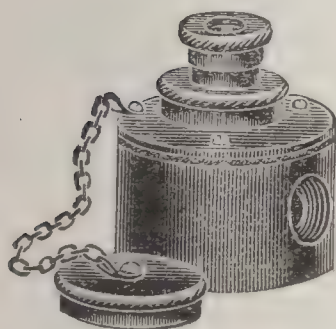
Russell Water-Tight Search-Light Receptacles with Plugs.



List No. 12800.

Brass.

List No.		Price.
12800	25 Amperes complete, for moulding, each	\$18 00
12801	25 " " " 3/4 inch conduit,	
	.....each	17 00
12802	50 " " " moulding, each	22 00
12803	50 " " " 3/4 or 1 inch con-	
	duit....each	21 60

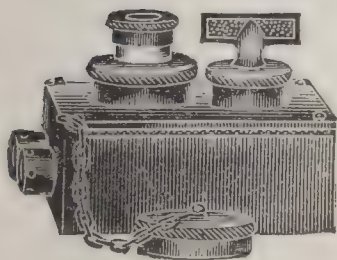


List No. 12804.

Russell Round Box Water-Tight Receptacle
with Plug.

Brass.

List No.		Price.
12804	2 Wire complete, for 1/2 inch conduit.....	\$4 50
12805	2 " " " 3/4 " "	4 50
12812	3 " " " 3/4 " "	8 00
12813	3 " " " 1 " "	8 00

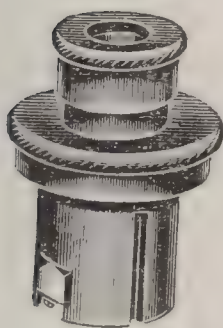


List No. 12806.

Russell Water-Tight Switch and Receptacle
with Plug.

Brass.

List No.		Price.
12806	5 Ampere complete, for moulding.....	\$6 40
12807	5 " " " 1/2 inch conduit..	6 00
12808	5 " " " 3/4 " " ..	6 00



List No. 12809.

Russell Water-Tight Plug.

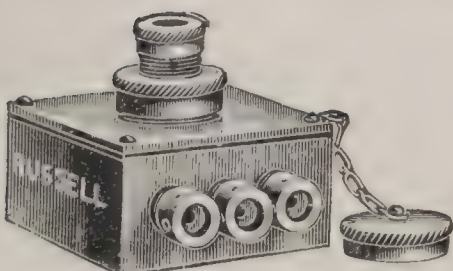
List No.		Price.
12809	10 Ampere plug only.....each	\$1 50

Same as used in No. 12804-5-6-7-8 receptacles.

The above are furnished in either black bronze or brass finish.

Black bronze is Navy standard.

3 Wire, 10 Amp. Receptacle and Plug.



List No.		Price.
12855	3 Wire complete, for 3/4 inch conduit..	\$8 00
12856	3 " " " 1 " " ..	8 00
12857	3 " " " moulding.....	8 50
12858	3 " Plug only.....	2 00

MARINE WIRING
SUPPLIES.



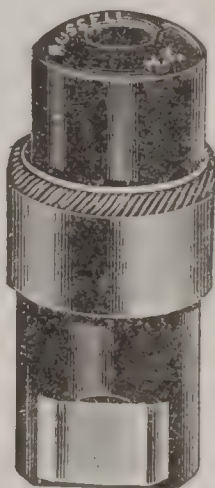
No. 16200.



No. 16201.

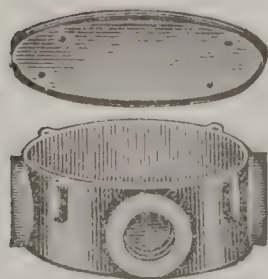
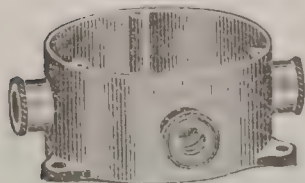
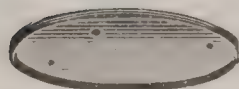
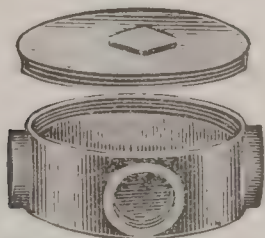
Flap Door Receptacle and Plug.

List No.	Price.
16200	Flap Door 10 Amp. Iron Box Receptacle for 1/2 or 3/4 inch conduit and Push-in Plug..\$2 50
16201	Extra Push-in Plug..... 1 00



Enclosed Fuse Extension Plug.

List No.	Price.
16202	Enclosed Fuse Extension Plug, to fit Flap door re- ceptacle.....\$2 00



No. 12810.

Marine Junction Boxes.

For 1/2 or 3/4 inch Conduit.

List No.	Price.
16203	4 inch Diameter, Brass with screw cover.....\$1 30
16204	4 inch Diameter, Iron with screw cover..... 80

For 1/2 or 3/4 inch Conduit.

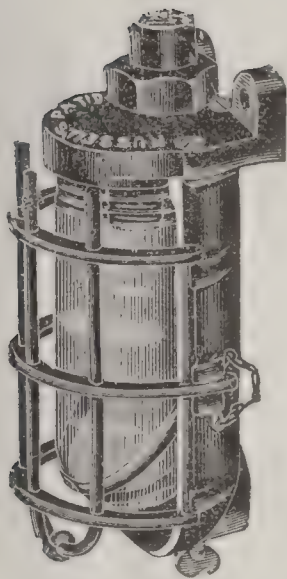
List No.	Price.
16205	4 inch Diameter, Brass with cap cover.....\$1 10
16206	4 inch Diameter, Iron with cap cover..... 70

List No.	Price.
16207	4 inch Diameter, Brass, cap cover with gland outlet....\$1 00
16208	Glands extra each..... 20

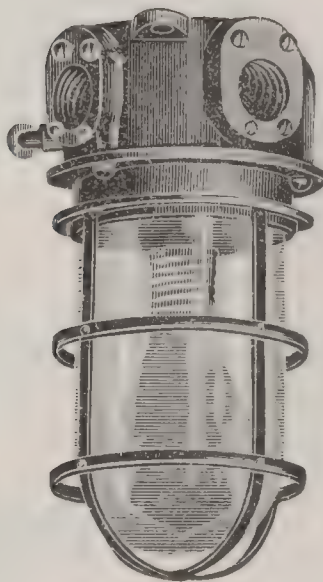
Russell Round Box Water-Tight Switch.

List No.	Price.
12810	5 Amperes, complete, for 1/2 inch conduit.....each \$4 50
12811	5 Amperes, complete, for 3/4 inch conduit.....each 4 50

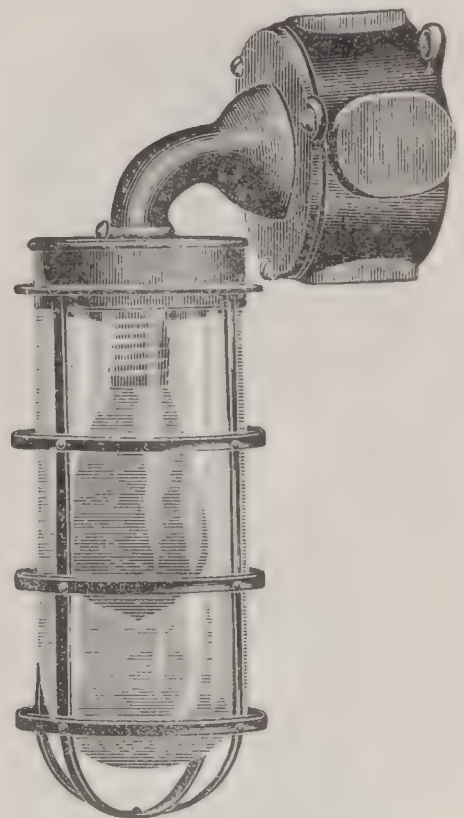
MARINE FIXTURES.



List No. 12814.



List No. 12815.



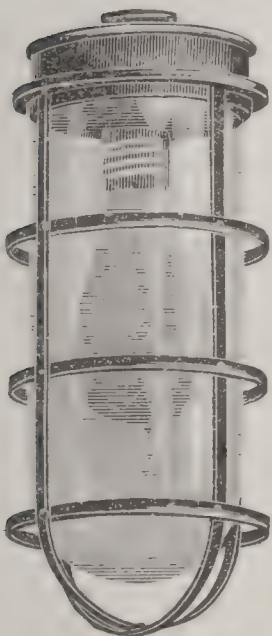
List No. 12816

List No.

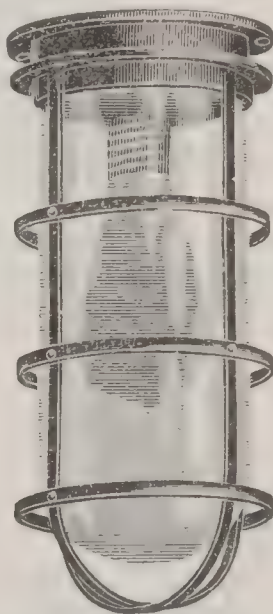
Price.

12814	Bulkhead Fixture, Steel Guard, enameled iron reflector, body water-tight, for conduit.....	\$8.80
12815	Water-tight, Brass Guarded Fixture on iron junction box.....	5.20
12816	Right Angle, Water-tight, Guarded Brass Fixture on iron junction box.....	6.90

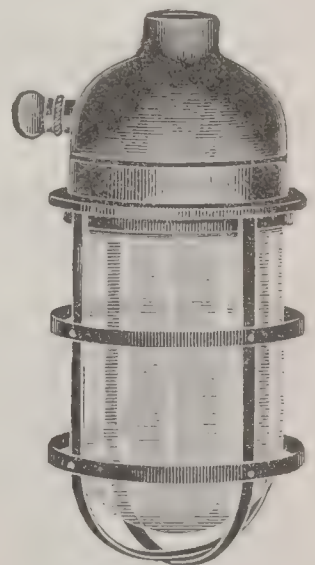
No. 12815 can be fitted with brass junction box for 70 cents list extra.



List No 12817.



List No. 12818.



List No. 12819.

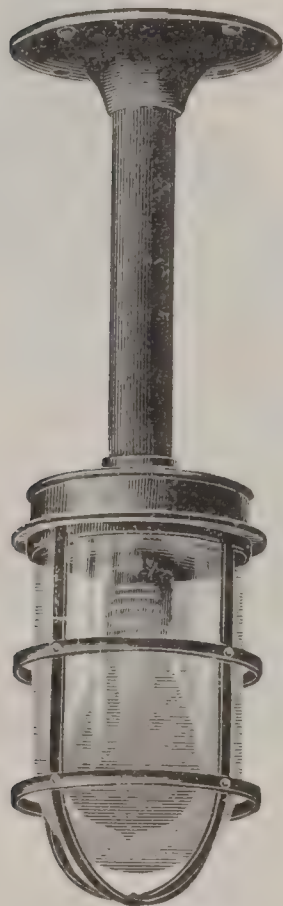
List No.

Price.

12817	Guarded, Brass, Water-tight Fixture for conduit.....	\$4.60
12818	“ “ “ “ “ moulding.....	4.00
12819	“ “ “ “ “ with key for conduit.....	7.50

The above illustrations are $\frac{1}{5}$ size. These Fixtures are furnished in black bronze or brass finish. Black bronze is Navy standard.

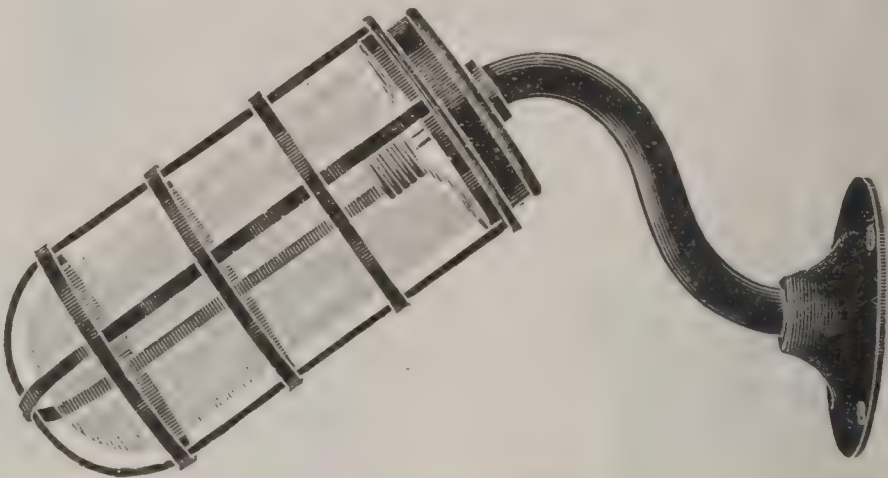
MARINE FIXTURES.



List No. 12822.

Guarded Water-tight
Brass Pendant Fixture
with Flange.

List No.	Price.
12822 Complete with 12 inch. stem.....each,	\$7 50
Each additional foot...	1 00



List No. 12823.

45° Angle Guarded Brass Water-tight Bracket
Fixture.

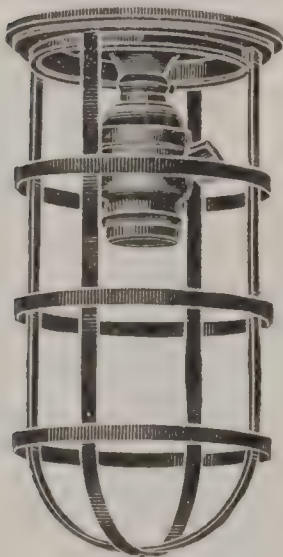
List No.	Price.
12823 Complete.....each,	\$8 15



List No. 12824.

Brass Water-tight Ceiling Fixture, with
Reflector.

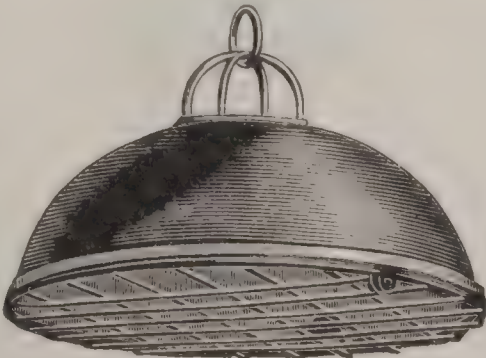
List No.	Price.
12824 Complete.....each,	\$7 40



List No. 12825

Guarded Non-Water-tight
Fixture For Moulding.

List No.	Price
12825 Complete .....each,	\$3 40



List No. 12826.

Cargo Cluster, Four-
Light Guarded
Brass Bowl Re-
flector, 18 inch
Diameter.

List No.	Price.
12826 Complete, each,	\$22 50

Illustrations are 1/2 size. Finished in brass or black bronze. Black bronze is Navy Standard.

MARINE FIXTURES.



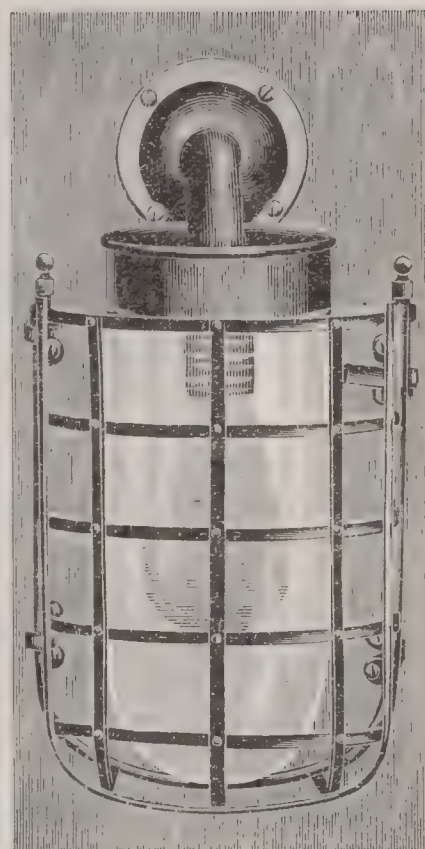
List No. 12838.

Brass Water-tight Bulk-head Fixture, Full Basket Guard.

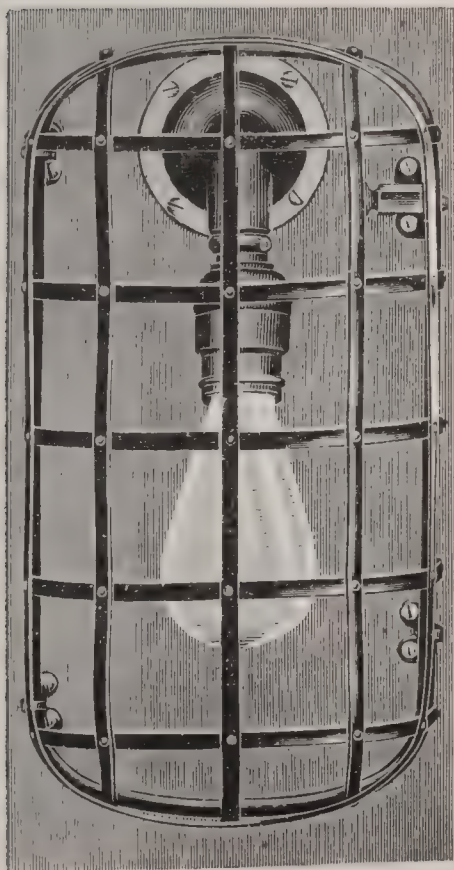
List No.	Price.
12838 Fixture complete.....	\$8 15

Brass Water-tight Bulk-head Fixture, Half Basket.

List No.	Price.
12839 Fixture complete.....	\$7 50



List No. 12839.



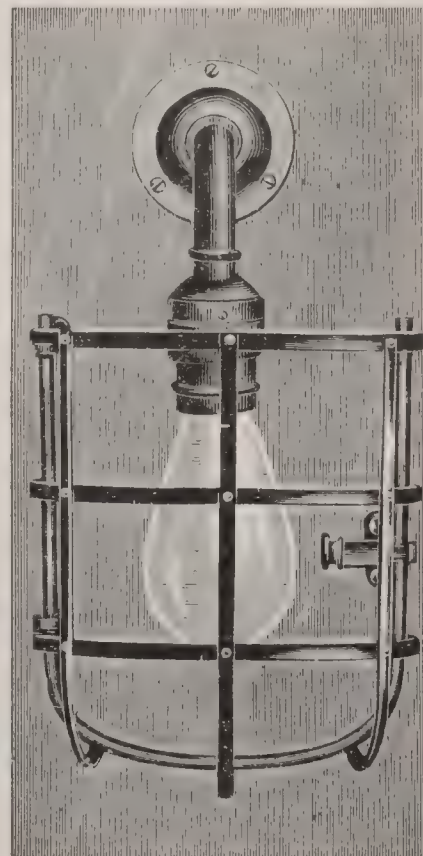
List No. 12840.

Brass Non-Water-tight Bulk-head Fixture, Full Basket Guard.

List No.	Price.
12840 Fixture complete.....	\$6 00

Brass Non-Water-tight Bulk-head Fixture, Half Basket Guard.

List No.	Price.
12841 Fixture complete.....	\$4 40

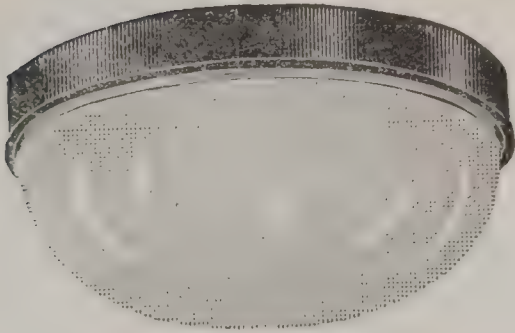


List No. 12841.

Illustrations are $\frac{1}{8}$ size. Finished in black bronze or brass and mounted on heavy white pine block.

MARINE FIXTURES.

Ceiling Fixtures.



No. 12827



No. 12828

List No.		Price.
12827	Automobile ceiling fixture, 7½ inch diameter, with switch and clear globe.....	\$5 50
12828	Same with Frosted globe, cut star ...	6 25
12829	Automobile plain 8 inch screw globe ceiling fixture.....	4 00



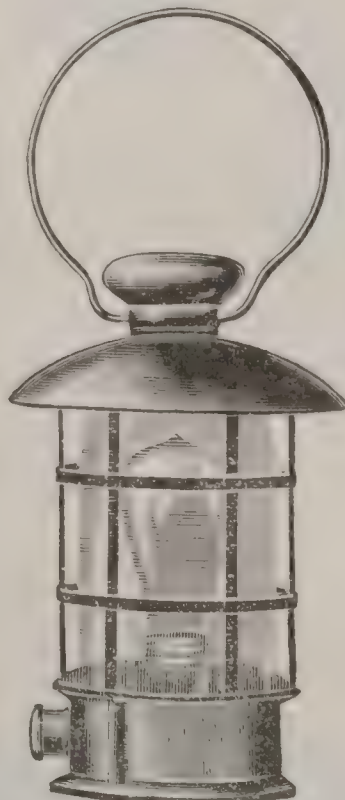
Water-Tight Fixture.

List No.		Price.
12836	Guarded Brass, water-tight fixture with feet for ½ or ¾ inch conduit	\$2 75

Lanterns.



List No. 12830



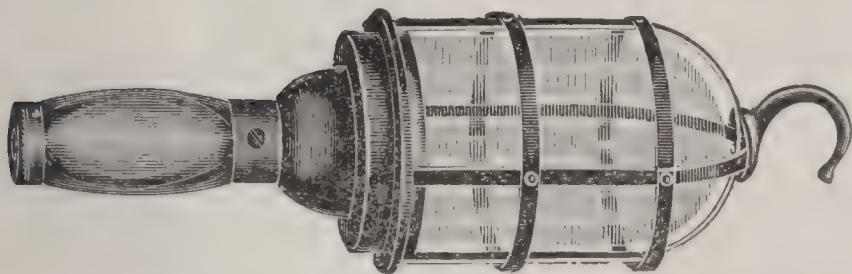
List No. 12831



List No. 12832

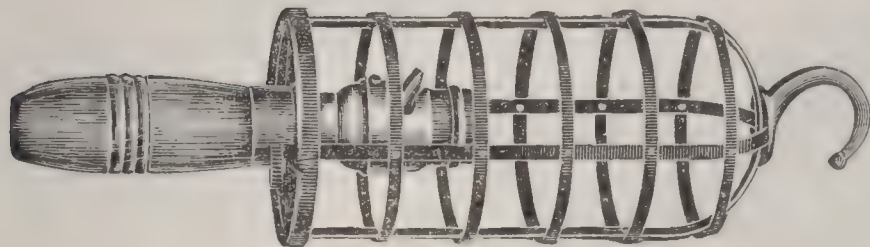
List No.		Price.
12830	Brass, Water-tight Lantern with guarded 4 in. fresnel globe..	each \$10 00
12831	“ “ “ “ guarded, with reflector top.....	“ 8 15
12832	“ “ “ guarded, Pole or Towing Lantern.....	“ 7 50

HAND PORTABLES.



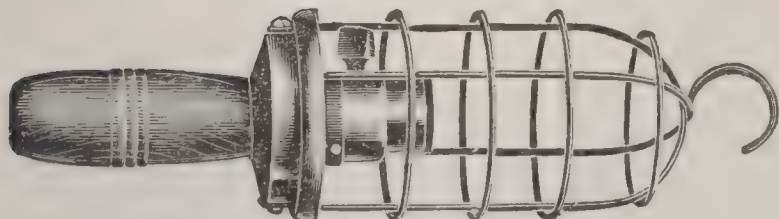
List No. 12833.

Guarded, Water-tight, Brass, Hand Portable, Short Type.		
List		Price
No.		Each.
12833	Complete	\$6 25



List No. 12834.

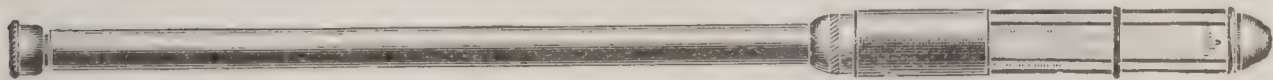
Guarded, Non-Water-tight, Brass Slip Guard, Hand Portable.		
List		Price
No.		Each.
12834	Complete	\$3 40



List No. 12835.

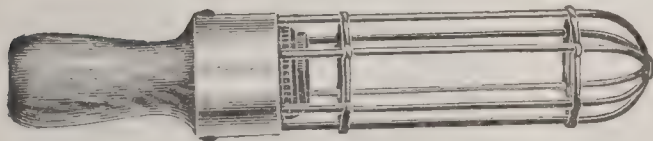
Galvanized Iron Wire Guard with Brass Head, Non-Water-tight, Hand Portable.		
List		Price
No.		Each.
12835	Complete	\$2 25

Water-tight Bung Hole, Hand Portable.



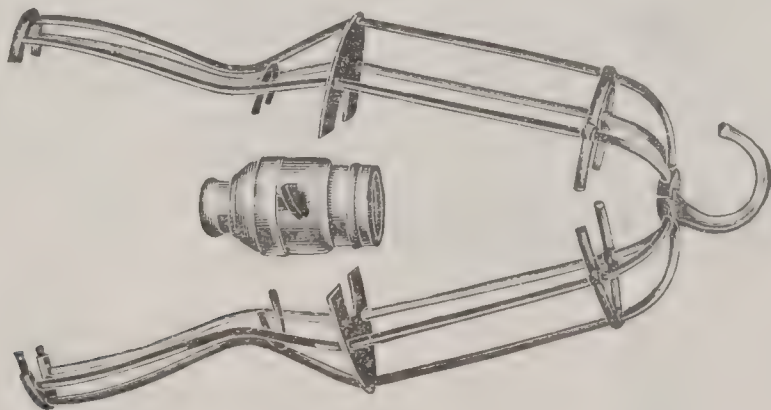
List		Price.
No.		
12837	Brass Water-tight hand portable.....	\$5 00

Short Handle Candle Lamp, Hand Portable.



List		Price.
No.		
12842	Brass non-water-tight hand portable.....	\$1 25

Clamp Guard, Hand Portable.



List No.		Price
12843	Brass clamp-on non-water-tight clamp, portable, without socket.....	each, \$1 20

CONDULETS.

Condulets are up to date outlets for exposed iron pipe wiring, and make a safer and neater wiring job than any other device. No locknuts or bushing are required. The caps of all types of Condulets of one size are interchangeable. All Condulets have standard pipe thread.

Size of wire holes in cap of $\frac{1}{2}$ inch Condulet { 1 wire $\frac{3}{8}$ inch.
2 and 3 wire 5-16 inch.
Size of wire holes in cap of $\frac{3}{4}$ inch Condulet { 1 wire 7-16 inch.
2 and 3 wires $\frac{3}{8}$ inch.

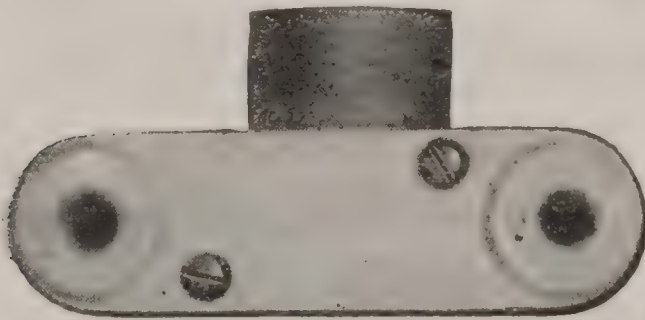


Type "A" 3 Wire.

Type "A" Condulets.

Can be used at terminal of iron pipe for wiring to meters, switches, rheostats, etc., etc., also at the junction of a piped line where it is desirable to continue the line with cleats.

Size Inches.	Std. Pkg.	1 Wire.		2 Wire.		3 Wire.	
		List No.	Price	List No.	Price.	List No.	Price.
$\frac{1}{2}$	250	16080	\$0.30	16086	\$0.30	16092	\$0.30
$\frac{3}{4}$	100	16081	Price on application	16087	Price on application	16093	Price on application
1	25	16082		16088		16094	
$1\frac{1}{4}$	10	16083		16089		16095	
$1\frac{1}{2}$	10	16084		16090		16096	
2	5	16085		16091		16097	

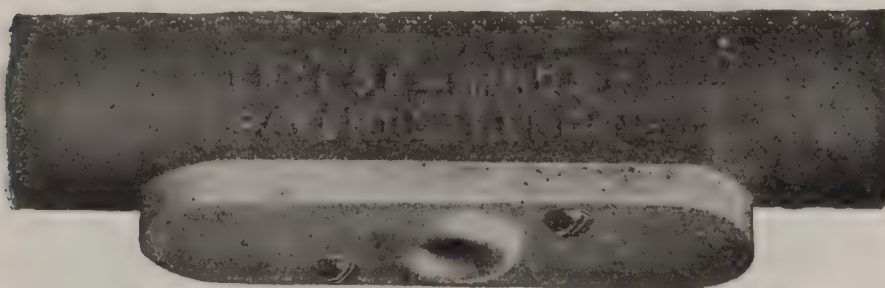


Type "B" 2 Wire.

Type "B" Condulet.

Can be used as ceiling terminal of exposed pipe for connecting arc lamps, drop lights, etc.

Size Inches.	Std. Pkg.	1 Wire.		2 Wire.		3 Wire.	
		List No.	Price.	List No.	Price.	List No.	Price.
$\frac{1}{2}$	250	16098	\$0.34	16101	\$0.34	16104	\$0.34
$\frac{3}{4}$	100	16099	on application.	16102	on application.	16105	on application.
1	25	16100		16103		16106	

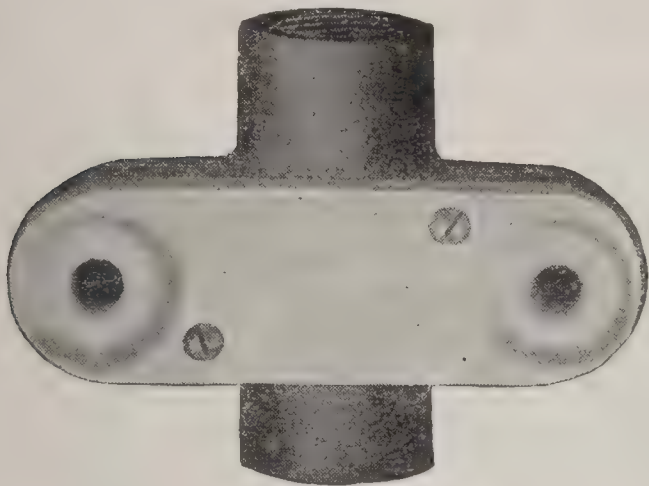


Type "C" 1 Wire.

Type "C" Condulet

Is intended for tapping a circuit for side wall receptacles, etc., from the pipe at the junction of ceiling and side wall where there is not sufficient room for an ordinary outlet box.

Size Inches.	Std. Pkg.	1 Wire.		2 Wire.		3 Wire.	
		List No.	Price.	List No.	Price.	List No.	Price.
$\frac{1}{2}$	250	16107	\$0.40	16110	\$0.40	16113	\$0.40
$\frac{3}{4}$	100	16108	on application.	16111	on application.	16114	on application.
1	25	16109		16112		16115	

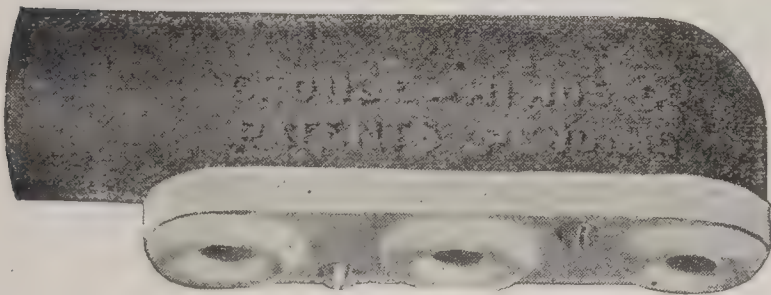


TYPE "D" CONDULET.

Used for drop light or any other purpose where it is desired to tap a circuit from exposed iron pipe at the ceiling.

Type "D," 2 Wire.

Size. Inches.	Std. Pkg.	1 Wire. List No.	Price.	2 Wire. List No.	Price.	3 Wire. List No.	Price.
1/2	250	16220	\$0 40	16223	\$0 40	16226	\$0 46
3/4	100	16221	On Applica- tion.	16224	On Applica- tion.	16227	On Applica- tion.
1	25	16222		16225		16228	

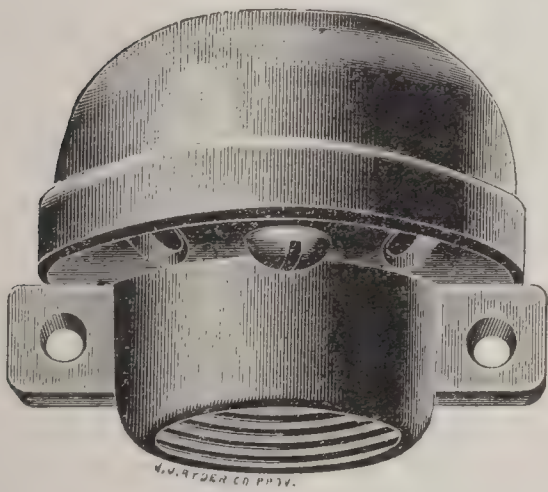


Type "E" Condulet.

Used as terminals for exposed iron pipe at the junction of ceiling and side walls. Makes a very neat substitute for outlet box.

Type "E," 3 Wire.

Size. Inches.	Std. Pkg.	1 Wire. List No.	Price.	2 Wire. List No.	Price.	3 Wire. List No.	Price.
1/2	250	16229	\$0 36	16232	\$0 36	16235	\$0 36
3/4	100	16230	On Applica- tion.	16233	On Applica- tion.	16236	On Applica- tion.
1	25	16231		16234		16237	



Boss Weatherproof Entrance Bushing.

For use at terminal of iron pipe in exposed places.

Time, labor and worry saved because it makes a permanent, serviceable fitting, and costs less to install than any other method.

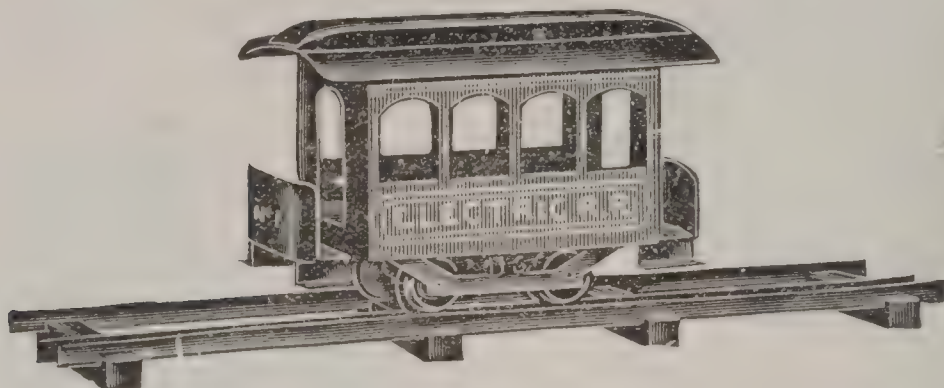
The cap is removed by loosening the screw seen in centre of cut. This gives access to inside of box which makes an easy and quick method of installation.

Approved by Board of Fire Underwriters.

Size Inches.	Std. Pkg.	2 Wire. List No.	Price.	3 Wire List No.	Price.
1/2	50	16250	\$0 60	16258	\$0 72
3/4	50	16251	70	16259	80
1	30	16252	1 00	16260	1 20
1 1/4	30	16253	1 20	16261	1 40
1 1/2	30	16254	1 40	16262	1 60
2	10	16255	1 70	16263	2 00
2 1/2	10	16256	2 40	16264	2 40
3	10	16257	3 60	16265	3 60

MINIATURE RAILWAY NOVELTIES.

No. 1. Combination Trolley and Flat Car.



This miniature trolley car is built on the lines of regular street cars and has smooth stained wood floor.

Car is $7\frac{1}{2}$ inches long and $4\frac{1}{2}$ inches high. It is made of heavy tin, artistically painted with best coach colors, and painted car lettering on both sides. The upper part of car can be removed, leaving a flat car with steps—two cars for the price of one.

The wheels, of painted brass, are mounted on a single piece of Bessemer steel shaft, making them very rigid, and they are insulated in an entirely new way.

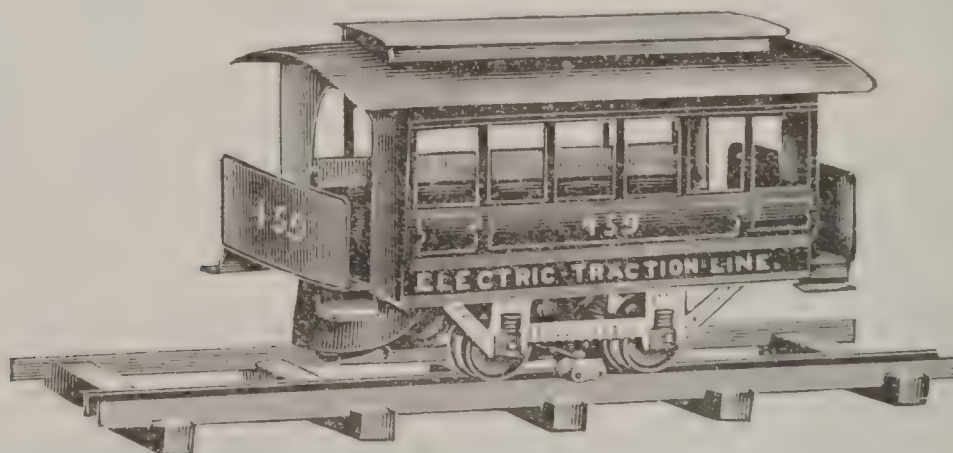
Motor is entirely concealed beneath the floor of the car and is geared direct to the driving wheels with **HARD BRASS GEARS**. It is electrically and mechanically perfect. The speed is about 200 feet per minute.

The complete equipment consists of Motor car, 9 feet polished crucible steel track (circle 3 feet in diameter), ties, and two Dry Batteries.

Weight, entire equipment, substantially packed for shipment, 12 lbs.

List No.		Price.
16360	Outfit complete, Car, Tracks, Ties and 2 Dry Batteries.....	\$7 00
16361	Motor Car only.....	5 50
16362	Trail Car, same size and style as Motor Car, but without motor.....	90
16363	Nine feet of Track with Ties.....	70
	Dry Batteries	each 60

No. 2. Electric Railway with Reversible Motor.



This car is much larger and handsomer than our No. 1 and carries out in much greater detail the actual working parts of the modern suburban Trolley Coach.

It is made of heavy tin, handsomely painted in three colors, and lettered. Has stained wood flooring and regulation seats. The wheels are mounted on a nickel-plated truck.

The truck is embossed with rivets. The Motor has a three-pole laminated armature, contained in a field made of cold rolled steel. A reversing lever enables the operator to run the car forward or backward. The Motor is self-starting. This is the most perfect outfit of its kind made, and we guarantee it to give satisfaction.

The Car is 12 inches long, and $5\frac{1}{2}$ inches high.

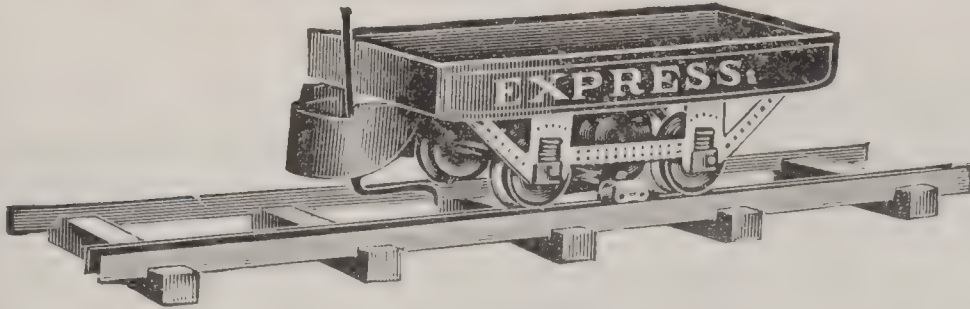
Wheels are $1\frac{1}{2}$ inches diameter.

Speed of car about 200 feet per minute.

List No.		Price.
16364	Complete outfit, Motor Car, 9 feet track, ties, and 4 cells Dry Battery.....	\$9 00
16365	Motor Car only	6 50
16366	Trail Car, same size and style as Motor Car, but without motor.....	1 00
	Track and Batteries same as for No. 1 outfit.	

MINIATURE RAILWAY NOVELTIES.

No. 3. Express Car Railway with Reversible Motor.



This Motor Car is a strong, substantial article, built to stand hard usage, at full speed. It will pull a train of several assorted trail cars.

Car is 9 inches long and 3 $\frac{3}{8}$ inches wide, made of rolled steel and is attractively painted and lettered.

The car is equipped with the same gear, wheels and truck as our No. 4, and is in every particular a high-grade model that cannot fail to give satisfaction.

The speed of this car is over 225 feet per minute.

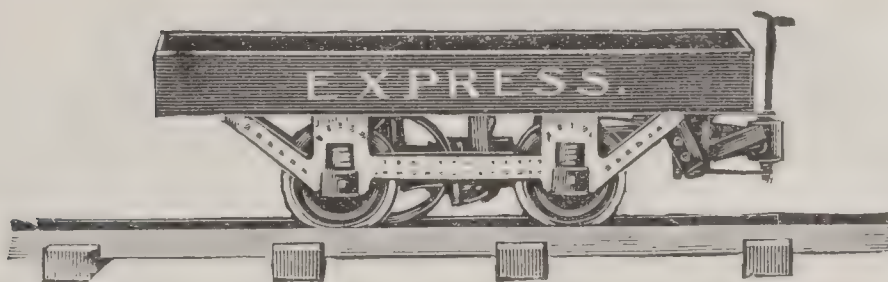
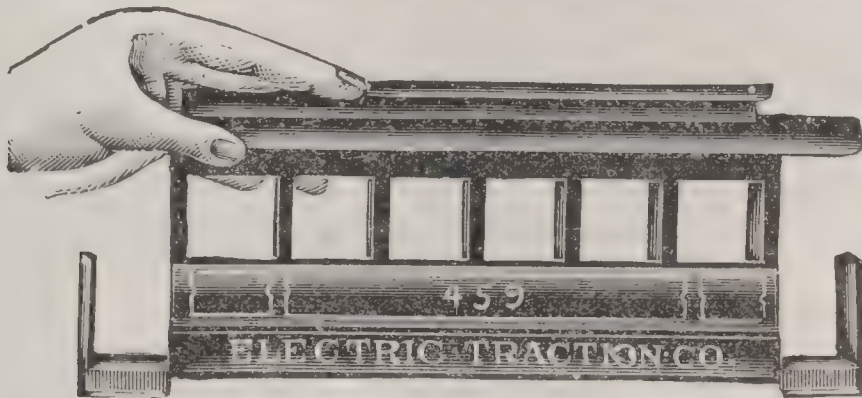
List No.

Price.

16367 Outfit complete, Motor Car, 9 feet track, ties and four Dry Batteries..... \$8 00

16368 Motor Car only 5 50

No. 4. Combination Trolley Car and Express Car with Reversible Motor.



Our Combination Trolley and Express Car is a great advance in Electric Toys.

IT PRACTICALLY COMPRISES TWO COMPLETE CARS AT THE PRICE OF ONE.

This outfit is a combination of both our No. 2 and No. 3 cars.

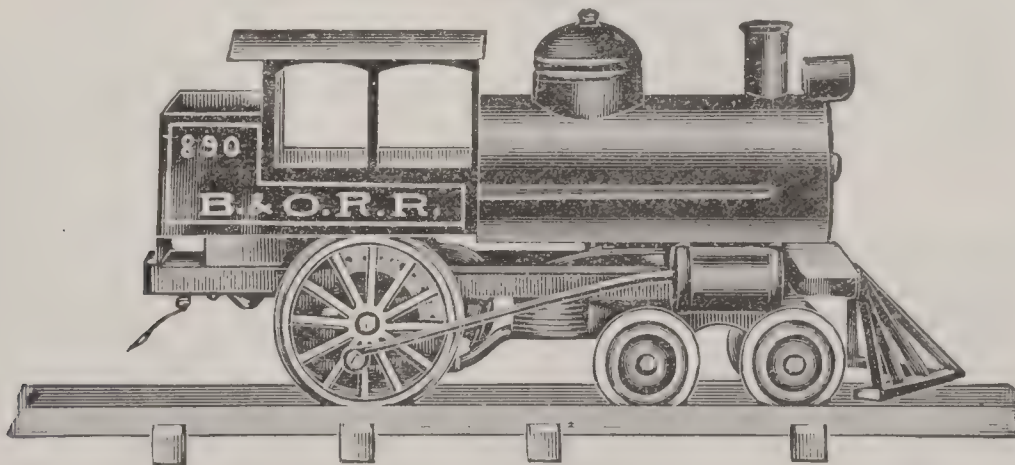
List No.

Price.

16369 Outfit complete, Combination Trolley and Express Car, 18 feet track and ties, 4 Dry Cells \$11 00

16370 No. 4. Combination Car only..... 8 00

Electric Switch Engine.



This Electric Switch Engine is a perfect model of a modern Switch Engine in general use for shifting freight cars, making up trains, and general work necessary in Railroad Yards.

Has Headlight, Driving Rods, Cylinder, Steam Dome and combination tender and cab.

Length of Locomotive, 10 inches, height 4 $\frac{1}{2}$ inches.

List No.

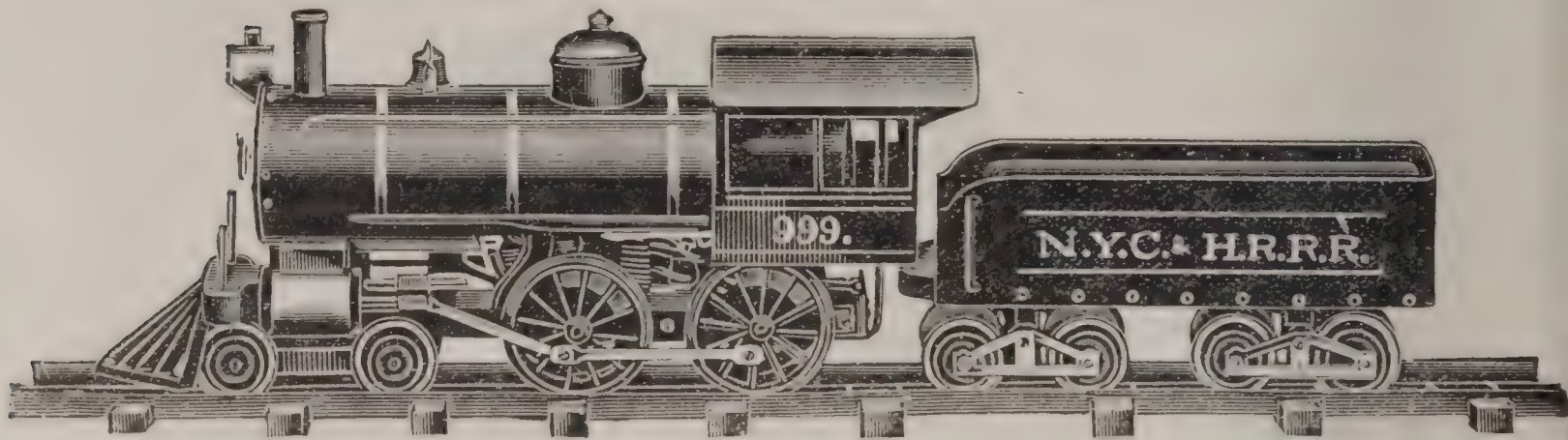
Price.

16371 Switch Engine only \$8 00

No track or batteries included at above price.

MINIATURE RAILWAY NOVELTIES.

No. 8. Modern Electric Locomotive.



It is built to scale, has slide drivers, solid brass driving wheels, with counter balance same as large locomotive.

The motor for driving this locomotive is the most powerful and economical motor made. Boiler head has brass rivets and nickel-plated bands. Hand rail and foot run. Metal signal posts. Air compressor and injector.

It is built after the high-grade new type of passenger locomotive used on modern limited trains.

Has separate tender with hollow water compartment, and coal space. Reversing throttle, and is self-starting.

Very strong and fast, and will pull a long train of cars with ease.

It is built for our standard two-inch gauge track.

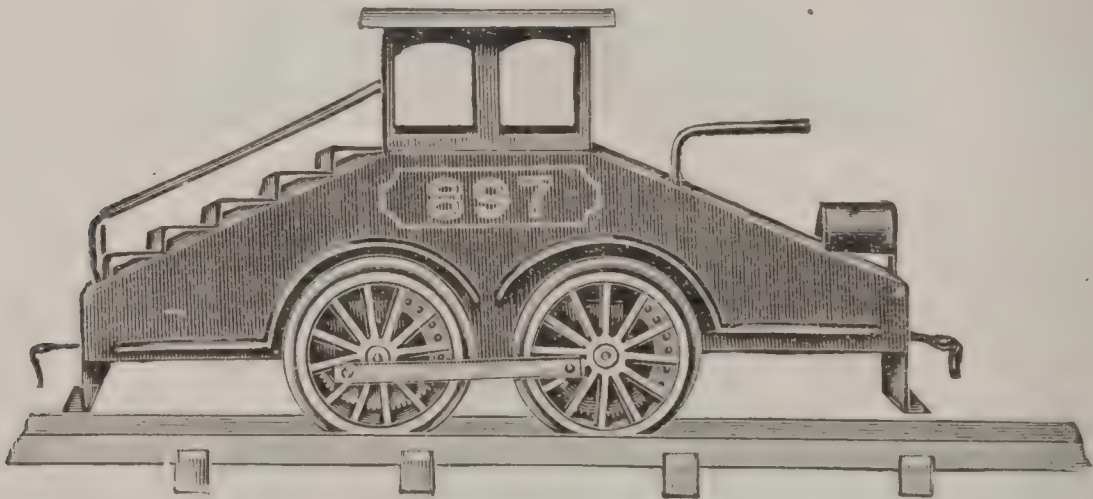
Length of locomotive and tender, 21 inches; height, 6 inches; wheels, 2 3/8 inches diameter.

List No.

16372 No. 8 Locomotive without track or batteries.....\$20 00

Price.

Coal Mining Locomotive.



Running gear on this locomotive is the same as that on our No. 8—solid 2 3/8-inch brass wheels with counter balance; reversing lever.

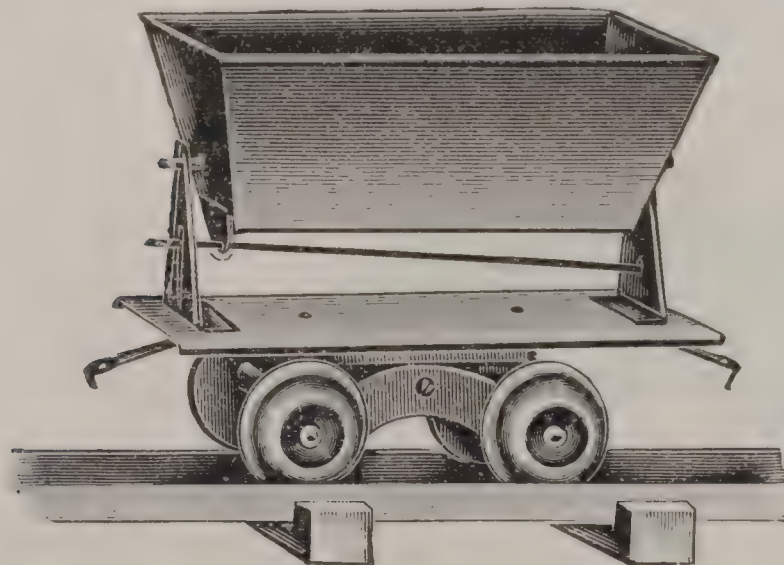
Length, 12 inches; height, 5 inches; width, 3 1/4 inches.

List No.

16373 Coal Mining Locomotive without track or batteries.....\$9 00

Price.

Dump Car.



Dump car has spring release, and is accurately balanced. Is positive in action, and will dump entire contents clear of the track. Has nicked trucks and striped brass wheels. Fitted with our new Car Coupling.

List No.

16374 Dump Car only.....\$0 80

Price.

MINIATURE RAILWAY NOVELTIES.



Flat Car.

Strongly made. Nicely painted. Has brass wheels on nickel-plated trucks.

List No.	Price.
16375 Car only	\$1 00



Gondola Flat Car.

This is of same construction as flat car with heavy tin box nicely painted and lettered.

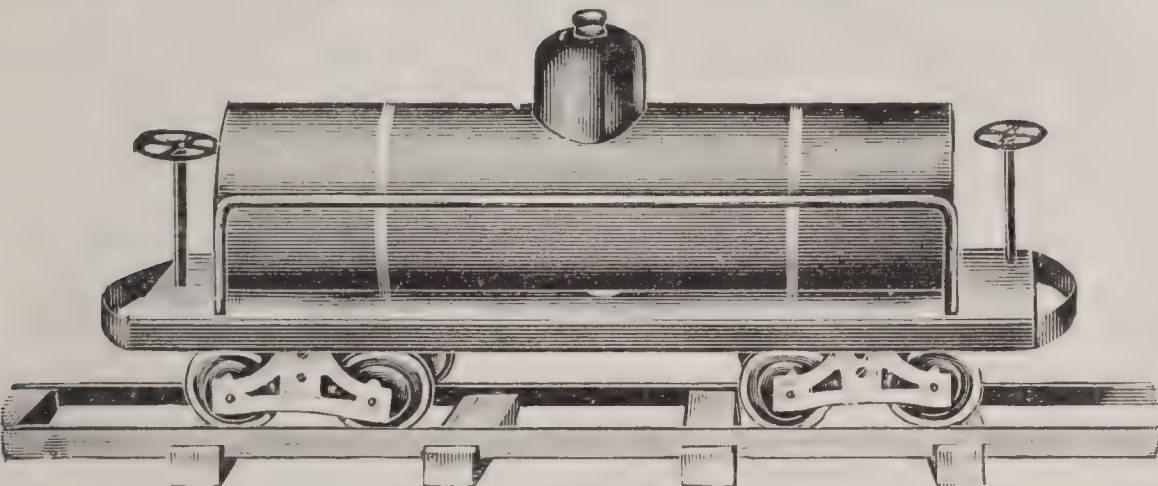
List No.	Price.
16376 Car only	\$1 10



Box Car.

Made of heavy tin neatly painted and lettered. Brass wheels. Bessemer rod axles on all cars.

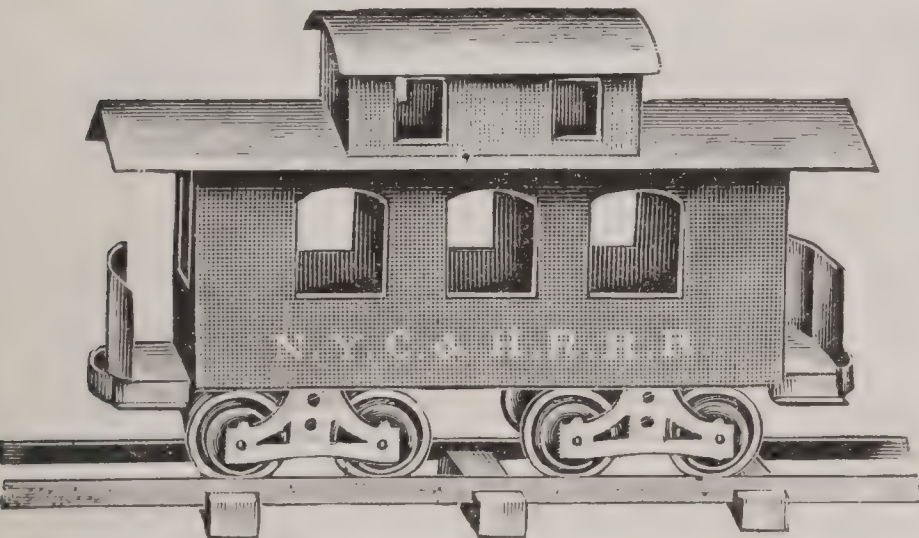
List No.	Price.
16377 Car only	\$2 40



Oil Car.

Painted a rich ruby color, with nickel-plated bands.

List No.	Price.
16378 Car only	\$2 40



Caboose.

Made of heavy tin nicely painted and lettered. Brass wheels. Nickel-plated trucks. Bessemer steel axles.

List No.	Price.
16379 Caboose only	\$2 40

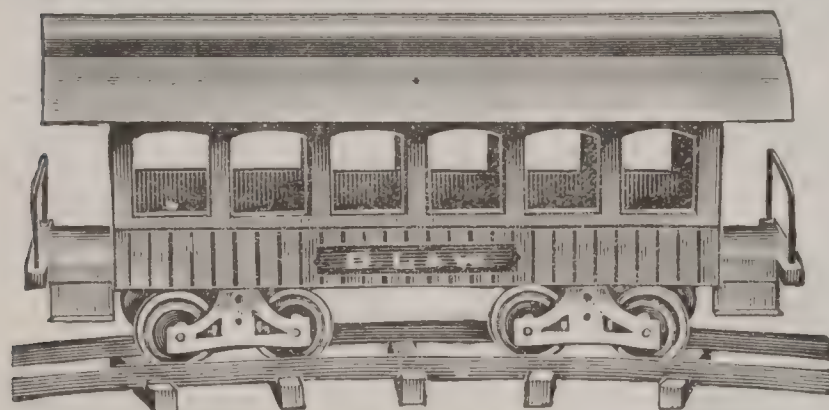
MINIATURE RAILWAY NOVELTIES.



Baggage Car.

Well constructed, painted and lettered. Brass wheels, nickel-plated trucks, sliding doors.

List No.	Price.
16380 Car only	\$2 50



Passenger Coach.

Length, 12 inches.
Height, 5¼ inches.
Width, 3¾ inches.

Very neat and attractive.

List No.	Price.
16381 Coach only	2 50

Pullman Baggage Car.



This car is suitable for our No. 8 locomotive. Made of heavy tin, attractively painted in colors, and lettered. Has sliding doors. Roof slides off the car, giving access for loading. Trucks are an exact reproduction of the large trucks used on Pullman cars, with oil box and springs. Cast in Babbitt metal, making a perfect and long-wearing bearing. New style coupling. Brass wheels 1⅝ inch diameter.

Length, 16 inches; height, 5¼ inches; width, 3¼ inches.

List No.	Price.
16382 Pullman Baggage Car only.....	\$4 50

Pullman Chair Car.



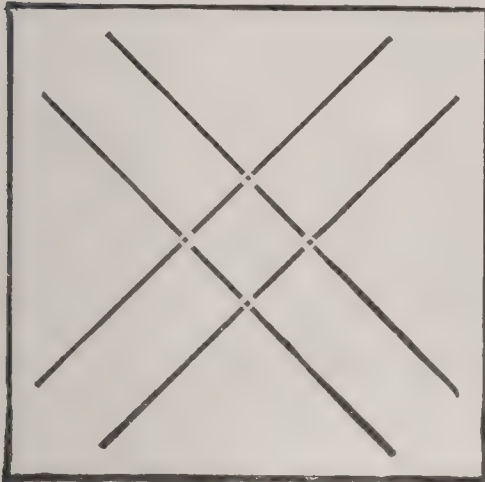
This car is suitable for our No. 8 locomotive. Made of heavy tin, painted in regulation colors and lettered. Running gear same as on Pullman Baggage Car. Sliding roof to car, and adjustable turn-over seats.

Length, 16 inches; height, 5¼ inches; width, 3¼ inches.

List No.	Price.
16383 Pullman Chair Car only.....	\$6 00

MINIATURE RAILWAY NOVELTIES.

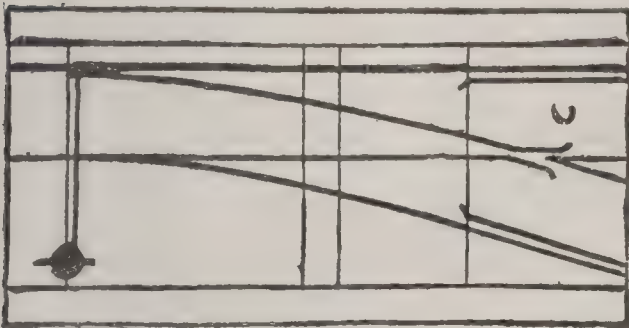
Railway Crossing.



Used for making loops, double crossovers, etc. Electrical connections all made and ready for installing.

List No. 16384 Crossing only Price. \$0 70

Right Hand Switch.



Used for making a switch on right-hand side of track.

List No. 16386 Right Hand Switch..... Price. \$1 50

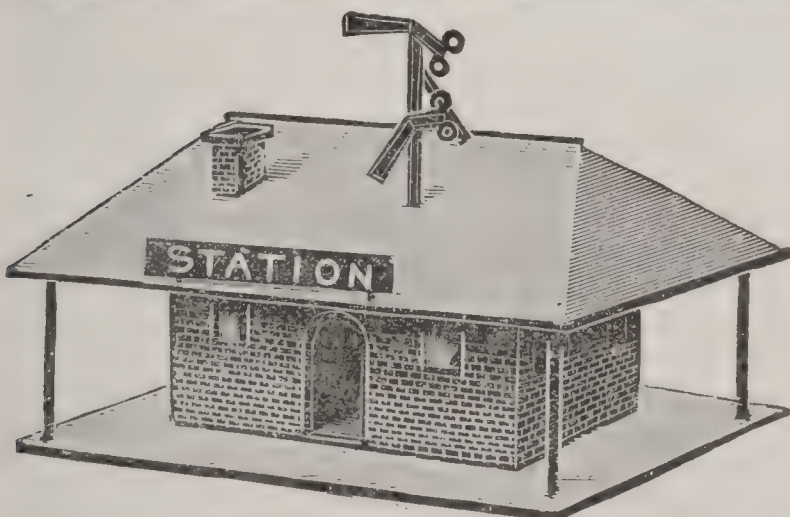
Many interesting combinations of switches and crossovers can be made with the above crossing and switches and extra pieces of track which can be purchased in 9-foot lengths with ties at 70 cents list.

For example: A figure 8 loop is made with one crossing and two 9-foot lengths of track.

A loop with double crossover requires one crossing, two right-hand and two left-hand switches, with sufficient track to make a total of 27 feet.

A "Y" requires one each curve, left-hand and right-hand switch, with sufficient track to complete it.

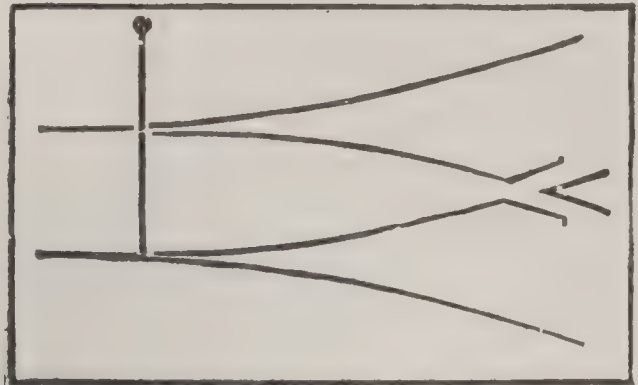
Railway Station with Automatic Signals.



Furnished complete, with separate track to use in front of station with all electrical connections made and ready to connect in. These signals show what block the car is on. They are operated by electro-magnets.

List No. 16388 Railway Station Price. \$4 50

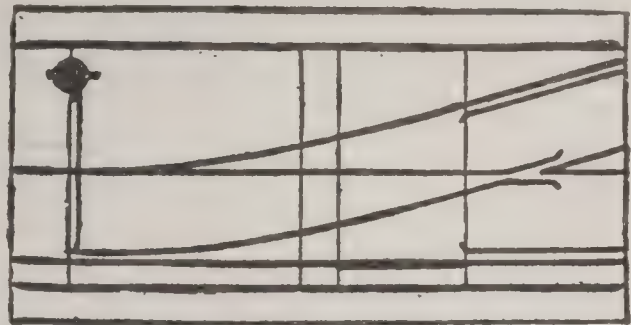
Curve Switch.



Used for making a "Y" and other combinations. All switches are connected and ready for installing.

List No. 16385 Curve Switch Price. \$1 50

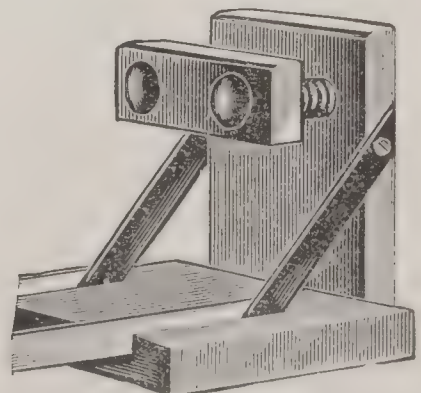
Left Hand Switch.



Used for making a switch on left-hand side of track.

List No. 16387 Left Hand Switch..... Price. \$1 50

Track Bumper.



To be used at the ends of sidings or main lines to prevent cars running off the track.

List No. 16389 Track Bumper Price. \$0 40

ELECTRICAL BOOKS.

Any Book mentioned in this Catalogue will be forwarded to any address
POSTAGE PAID, on receipt of price.

ADAMS—Design, Construction and Use of Transformers	\$1.50
ALLSOP—Practical Electrical Bell Fitting	1.25
ALLSOP—Electric Bell Construction	1.25
ALLSOP—Induction Coils and Coil Making	1.25
ALLSOP—Telephones, Their Construction and Fitting	1.25
ALLSOP—Practical Electric Light Fitting	1.50
ARNOLD, E—Armature Windings of Direct Current Dynamos	2.00
ASHE KEILEY—Electric Railways	2.50
ATKINSON—The Elements of Electric Lighting	1.50
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ATKINSON—Power Transmitted by Electricity	2.00
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AVERY—Design of Dynamos50
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BADT—Bell Hangers' Hand-Book	1.00
BADT—Electric Transmission Hand-Book	1.00
BADT—Incandescent Wiring Hand-Book	1.00
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BEDELL—Alternating Currents	2.50
BEHREND—Inductor Motor: A Short Treatise on its Theory and Design	1.50
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BOTTONE—Electro-Motors: How made and How Used75
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DAY—Exercises in Electrical and Magnetic Measurements	1.00
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FORBES—Alternating and Interrupted Electric Currents	1.00
FOSTER—Electrical Engineers' Pocket-Book	5.00
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GEE—Electrical Energy	1.25
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GUTMANN—The Motorman and His Duties.....	1.00
HALLIDAY, G.—Notes on Design of Small Dynamos.....	1.00
HANCHETT—Electric Railway Motors	2.00
HARE—Construction of Large Induction Coil.....	2.50
HARRIS—Rudimentary Magnetism	1.80
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HARRISON—Voltaic Electricity50
HARRISON—First Steps in Magnetism50
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HASKINS—Transformers	1.25
HASLUCK—Dynamos and Electric Motors50
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HAWKINS & WALLACE—The Dynamo: Its Theory, Design and Manufacture	3.00
HAY—Principles of Alternate Current Working	2.00
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HOUSTON & KENNELLY—Electrical Engineering Leaflets in Three Grades: Elementary, Intermediate and Advanced, each	1.50
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LOCKWOOD—Electricity, Magnetism and Electric Telegraphy	2.50
LODGE—Signaling Across Space Without Wires	2.00
MAC FADDEN & RAY—The Practical Application of Dynamo-Electric Machinery	1.00
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